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The Effectiveness of Five International Biodiversity-Related Conventions

Karin Baakman

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THE EFFECTIVENESS OF FIVE INTERNATIONAL BIODIVERSITY-RELATED CONVENTIONS

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LIST OF ABBREVIATIONS

ABS	Access and Benefit Sharing
AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
ASCI	Areas of Special Conservation Interest
ASEAN	Association of Southeast Asian Nations
BfU	Betreuungsgesellschaft für Umweltfragen
BINU	Biodiversity Indicators for National Use
2010 BIP	2010 Biodiversity Indicators Partnership
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CEDaR	Centre for Environmental Data and Recording
CEPA	Communication, Education and Public Awareness
CHM	Clearing House Mechanism
CI	Conservation International
CIESIN	Center for International Earth Science Information Network
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COE	Council of Europe
COMPACT	Community Management of Protected Areas for Conservation
COP	Conference of the Parties
CPF	Collaborative Partnership on Forests
CSD	Commission on Sustainable Development
DAC	Development Assistance Committee
DEFRA	Department for Environment, Food and Rural Affairs (UK)
DIVERSITAS	International Programme of Biodiversity Science
DOALOS	United Nations Division for Ocean Affairs and the Law of the Sea
EAP	Environmental Action Programme
EC	European Community
ECJ	European Court of Justice
ECNC	European Centre For Nature Conservation
ECLAC	Economic Commission for Latin America and the Caribbean (United Nations)
ECOSOC	Economic and Social Council
EDF	Environmental Defence Fund
EEA	European Environment Agency
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EIA	Environmental Investigation Agency
EIS	European Invertebrate Survey
EP	European Parliament
EPA	Environmental Protection Agency
EPI	Environmental Performance Index
ESA	Endangered Species Act

ESA	European Space Agency
ESCWA	Economic and Social Commission for Western Asia (United Nations)
ETIS	Elephant Trade Information System
EU	European Union
EUROBATS	Agreement on the Conservation of Bats in Europe
FAO	Food and Agriculture Organisation
FFI	Fauna and Flora International
FIELD	Foundation for International Environmental Law and Development
G8	Group of Eight
G77	Group of Seventy-Seven (developing countries)
GATT	General Agreement on Tariffs and Trade
GAO	General Accounting Office (USA)
GBO	Global Biodiversity Outlook
GBIF	Global Biodiversity Information Facility
GEF	Global Environment Facility
GEO	Global Environmental Outlook
GEO	Group on Earth Observations
GEO BON	Group on Earth Observations Biodiversity Observation Network
GEOSS	Global Earth Observation System of Systems
GISP	Global Invasive Species Programme
GIWA	Global International Waters Assessment
GLISPA	Global Island Partnership
GRASP	Great Ape Survival Project
GROMS	Global Register of Migratory Species
GSIS	Global Species Information System
GTI	Global Taxonomy Initiative
HDI	Human Development Index
HPAI	Highly Pathogenic Avian Influenza
IATA	International Air Transport Association
IBLF	International Business Leaders Forum
IBRD	International Bank for Reconstruction and Development
ICBP	International Council for Bird Preservation
ICC	International Chamber of Commerce
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICJ	International Court of Justice
ICJ *Rep.*	Reports of Judgments and Advisory Opinions of the International Court of Justice
ICOMOS	International Council of Monuments and Sites
ICPD	International Conference on Population and Development
ICPO	International Criminal Police Organization - INTERPOL
ICSU	International Council for Scientific Unions
IDA	International Development Association
IEEP	Institute for European Environmental Policy
IELMT	International Environmental Legal Materials and Treaties
IFAP	International Federation of Agricultural Producers
IFAW	International Fund for Animal Welfare

IFC	International Finance Corporation
IIFB	International Indigenous Forum on Biodiversity
ILC	International Law Commission
ILM	International Legal Materials
IMF	International Monetary Fund
IMO	International Maritime Organisation
IMoSEB	International Mechanism of Scientific Expertise on Biodiversity
IMP	Information Management Plan (CMS)
IMPEL	Implementation and Enforcement of Environmental Law (EU)
INECE	International Network for Environmental Compliance and Enforcement
IOC	Intergovernmental Oceanographic Commission
IOI	International Ocean Institute
IOP	International Organisation Partner
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IPIECA	International Petroleum Industry Environmental Conservation Association
IPO	Indigenous People Organisation
IPPC	International Plant Protection Convention
IT IS	Integrated Taxonomic Information System
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organisation
IUBS	International Union of Biological Sciences
IUCN	International Union for Conservation of Nature and Natural Resources (World Conservation Union)
IUCN CEC	International Union for Conservation of Nature and Natural Resources Commission on Education and Communication
IUPN	International Union for the Protection of Nature (renamed IUCN in 1956)
IWC	International Whaling Commission
IWMI	International Water Management Institute
IWRB	International Wildfowl Research Bureau
LCIE	Large Carnivore Initiative for Europe
LICUS	Low Income Countries Under Stress
MA	Millennium Assessment
MAB	Man and the Biosphere
MedWet	Mediterranean Wetlands Initiative
MEP	Member of the European Parliament
MIKE	Monitoring the Illegal Killing of Elephants
MOC	Memorandum of Cooperation
MOP	Meeting of the Parties
MOU	Memorandum of Understanding
NASA	National Aeronautics and Space Administration

NAWEG	North American Wildlife Enforcement Group
NGO	Non Governmental Organisation
NRDC	National Resources Defence Council
OAS	Organisation of American States
OAU	Organisation of African Unity (now African Union)
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
PACT	Partnerships for Conservation
PCIJ	Permanent Court of International Justice
PNAS	Proceedings of the National Academy of Sciences of the United States of America
POPIN	Population Information Network (United Nations)
RECIEL	Review of European Community and International Environmental Law
REDD	Reducing Emissions from Deforestation and Degradation
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SCLDF	Sierra Club Legal Defence Fund
SCOPE	Scientific Committee on Problems of the Environment
SGF	Small Grants Fund (Ramsar Convention)
SPA	Special Protection Area
SPREP	South Pacific Regional Environment Programme
STRP	Scientific and Technical Review Panel
TEEB	The Economics of Ecosystems and Biodiversity
TETF	Tiger Enforcement Task Force
TIGERS	Trade Infraction and Global Enforcement Recording System
TNC	The Nature Conservancy
TRAFFIC	Trade Records Analysis of Flora and Fauna in Commerce
TRIPS	Agreement on Trade-related Aspects of Intellectual Property Rights
UKTS	United Kingdom Treaty Series
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCCUR	United Nations Conference on the Conservation and Utilisation of Resources
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNCSD	United Nations Commission for Sustainable Development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNF	United Nations Foundation
UNFA	United Nations Fishing Agreement

UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNGA	United Nations General Assembly
UNIDO	United Nations Industrial Development Organisation
UNITAR	United Nations Institute for Training and Research
UNTS	United Nations Treaty Series
UNU	United Nations University
USNRC	United States National Ramsar Committee
UST	United States Treaties
WBCSD	World Business Council for Sustainable Development
WBDB	World Bird Database
WCED	World Commission on Environment and Development
WCMC	World Conservation and Monitoring Centre
WCS	Wildlife Conservation Society
WECD	World Commission on Environment and Development
WIPO	World Intellectual Property Organisation
WLI	Wetland Link International
WNHS	World Natural Heritage Site
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation
WWAP	World Water Assessment Programme
WWF	Worldwide Fund for Nature
WWT	Wildfowl and Wetlands Trust
ZSL	Zoological Society of London

INTRODUCTION

1. International Legal Protection of Biodiversity

This study concerns the international legal protection of biological diversity - or biodiversity - and focuses on the effectiveness of the five most important global conventions in this domain that have been agreed upon by the international community.

Biodiversity is understood to mean 'the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems'.[1]

Biodiversity has diminished significantly in recent times as a result of human activities. Many species as well as ecosystems are under threat. Of all described mammals, 21% are classified as globally threatened. For birds this percentage is 12 and for amphibians it is even 30.[2] Experts have estimated that the current rate of extinction is 1,000 to 10,000 times higher than the natural rate; a phenomenon often referred to as the sixth extinction crisis in history.[3]

The situation with regard to ecosystems is no better. The Millennium Ecosystem Assessment, published in March 2005, reveals that humans have changed ecosystems more rapidly and extensively in the last 50 years than in any other period in human history, and that as a result around 60% of ecosystem services, such as water purification and pollination, are being degraded or used unsustainably.[4]

The serious threat to biodiversity has been recognised by the international community for some time and there is general agreement among UN Member States that biodiversity is of great importance to humankind. The preamble of the Convention on Biological Diversity emphasises the importance of biodiversity 'for evolution and for maintaining life sustaining systems of the biosphere'.[5] To stop the decline of biodiversity, national, regional and international legislation has been adopted by the vast majority of UN Member States.[6] At the UN Conference on Sustainable Development that took place in 2002 in Johannesburg, South Africa, a key target was set to significantly reduce the loss of biodiversity by 2010.

At the international level the following five conventions are at the centre of the protection of biodiversity:

— The Convention on Wetlands of International Importance Especially as Waterfowl Habitat of 1971 (Ramsar Convention);[7]
— The UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage of 1972 (World Heritage Convention);[8]
— The Convention on International Trade in Endangered Species of Wild Fauna and Flora of 1973 (CITES);[9]
— The Convention on the Conservation of Migratory Species of Wild Animals of 1979 (CMS);[10] and
— The Convention on Biological Diversity of 1992 (CBD).[11]

These five conventions aim to address major international biodiversity-related problems, are global in reach and have been in place for relatively long periods of time, ranging from

almost twenty years (CBD) to over thirty (CMS) and even over thirty-five years (the Ramsar Convention, the World Heritage Convention and CITES).

The Ramsar Convention focuses on the protection of the world's wetlands, the World Heritage Convention has as its objective the preservation of parts of the world's cultural and natural heritage, CITES aims to ensure that international trade in wild animals and plants does not threaten their survival and the CMS is supposed to conserve migratory species that have an unfavourable conservation status and their habitats. The CBD takes a more holistic approach by covering all species, ecosystems and genetic resources. Its objectives are the conservation of biodiversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

This international biodiversity-related legislation has now been in place for a considerable period of time and the important question arises whether or not it is effective. Scientific research confirms that the decline in biodiversity has continued unabatedly in recent years. It could therefore be argued that the effectiveness of the combined biodiversity-related legislation is inadequate.

However, such a broad conclusion would not be very meaningful. The relevant conventions should be examined individually to assess their effectiveness in relation to the problem(s) they seek to address. How exactly do these conventions operate in practice, and if one or more conventions should be found to be ineffective, what specifically is causing this?

Several studies into the effectiveness of international environmental agreements have been done, but just a few include (some of) the conventions assessed in this study. One example is the 1992 study on the effectiveness of all existing international environmental conventions, carried out by an international team of experts under auspices of the United Nations Conference on Environment and Development.[12] Another important study, undertaken by Brown Weiss and Jacobson (Eds.), focuses mainly on the issue of compliance in relation to a number of these conventions.[13] Although both studies discuss the effectiveness of (or compliance with) several conventions in some detail, they do not attempt to somehow measure it.

2. Research Questions

The main research question addressed in this study is: Are the five major international biodiversity-related conventions effective? Before this question can be attended to, an underlying research question has to be dealt with first: How can the effectiveness of international biodiversity-related conventions be assessed? To be able to answer this question, two issues have to be examined. The first one relates to the necessity to formulate a workable definition of effectiveness. The second issue concerns the methodology that has to be developed to be able to assess the effectiveness of the conventions. Important points that need to be addressed in relation to the latter are: What are the relevant elements that have to be considered to determine the effectiveness of international biodiversity-related conventions and how can these be measured?

3. Line of Action

This study introduces a test, which provides a structure to assess the effectiveness

of the five international biodiversity-related conventions. The development of this 'Effectiveness Test' necessitates addressing essential issues, such as defining 'effectiveness' and establishing the elements and benchmarks that the test should comprise in order to actually measure the effectiveness of these conventions. This part of the study involves an extensive review of the relevant literature, mostly by authorities on international law, political science and international environmental governance, as well as discussions with various experts.

To conduct the assessments of the conventions by means of the Effectiveness Test, the texts of the conventions, the extensive documentation produced by the conventions' bodies, relevant publications, as well as some case law have been examined. Where necessary, questionnaires were sent to the secretariats of the conventions and other relevant institutions and a number of interviews were held to obtain further clarification on specific issues.

The documents produced and published by the bodies of the conventions, such as the decisions of the decision-making bodies and the recommendations of the scientific bodies, have been an important source included in the assessments. Especially relevant are the many reviews, studies and evaluations carried out by or on behalf of the secretariats of the conventions.

It appears that the availability of literature varies for each of the five conventions. Some conventions, such as the CMS, have received comparatively limited attention from authors considered to be experts in the field, while others, such as the CBD, have been studied more widely. Obviously, this literature has also been used as input for the assessments.

Questionnaires were sent to the secretariats of the Ramsar Convention, the CMS and the CBD as well as to the European Commission and TRAFFIC.[14] To obtain further clarification on various issues, meetings took place with representatives of the Netherlands Committee for the IUCN, the Dutch Ministry of Agriculture, Nature and Food Quality, Wetlands International and the Dutch Delegation to the World Heritage Committee (from 2003-2007).

Besides legal elements, the Effectiveness Test also comprises elements dealing with other disciplines such as finance, public relations and environmental science and technology. Material on these subjects relevant to biodiversity and the conventions has obviously been considered in relation to the assessments as well.

This study does not directly examine national data and developments, but concentrates on information in relation to the international level, including reports comprising synthesised material.

It should further be noted that the scope of the five conventions does not extend to the global commons. As a consequence, marine biodiversity and its protection are not fully covered.

In connection with these two caveats, it is important to underline that the Effectiveness Test has been designed to be a practical, broad and easily accessible test and its results should therefore be taken as indicative in nature.

4. Structure

Before the research questions are addressed in detail, a more general introduction to the subject matter is essential, which is provided in the first two chapters of this study. In Chapter I, the state of, threats to and importance of biodiversity are examined as well as the various methods currently used to protect it. Besides, definitions are given of terms such as

biodiversity, species and ecosystems. The history of international environmental law in relation to the protection of biodiversity is reviewed in Chapter II.

Chapter III is at the core of this study. It addresses the underlying research question of how the effectiveness of international biodiversity-related conventions can be assessed, and introduces the Effectiveness Test, which is specifically developed for this purpose.

In the second section of Chapter III, some influential studies on the concept of effectiveness in relation to international environmental agreements will be briefly discussed. The different approaches concerning the meaning of effectiveness will be looked at in section 3 and a workable definition of effectiveness formulated. Section 4 of this chapter introduces and clarifies the methodology used in this study, which includes the selection of the ten elements and their respective benchmarks that the Effectiveness Test comprises. The use of benchmarks is considered essential to be able to assess a convention's performance on each element. This fourth section also describes the working of the Effectiveness Test when applied to the conventions. The ten elements of the Effectiveness Test will be revisited in section 5 of Chapter III for a more in-depth analysis.

In Chapters IV to VIII, the main research question, whether or not the five major international biodiversity-related conventions are effective, is explored in detail on the basis of the Effectiveness Test. The current status of each convention in relation to all ten elements of the Effectiveness Test is assessed, and the final evaluation concerning the effectiveness of the convention is presented in the concluding section of each chapter.

The conventions are discussed in chronological order. The first biodiversity-related convention to be assessed is the 1971 Convention on Wetlands of International Importance Especially as Waterfowl Habitat, better known as the Ramsar Convention, in Chapter IV. The principle objective of this treaty is 'to stem the progressive encroachment on and loss of wetlands now and in the future'.[15] In Chapter V, the 1972 World Heritage Convention is analysed. This treaty has as its main objective to preserve parts of the cultural and natural heritage because of their outstanding interest for mankind as a whole.[16] To ensure that international trade in wild animals and plants does not threaten their survival, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, better known as CITES, was signed in 1973.[17] This convention is evaluated in Chapter VI. In Chapter VII, the 1979 Convention on the Conservation of Migratory Species of Wild Animals, better known as the CMS, is reviewed. The purpose of this treaty is twofold. The first objective is to pay 'special attention to migratory species the conservation status of which is unfavourable, and taking individually or in cooperation appropriate and necessary steps to conserve such species and their habitat'.[18] The second objective is 'to avoid any migratory species becoming endangered'.[19] The examination of the 1992 Convention on Biological Diversity, or the CBD, is undertaken in Chapter VIII. The objective of this convention is threefold: (1) the conservation of biological diversity; (2) the sustainable use of its components; and (3) the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.[20]

The concluding Chapter IX includes an overview of the Effectiveness Test results for the five conventions as well as some overall conclusions.

This study was largely completed during the first quarter of 2010, which is reflected in the publication dates of the documents and literature that have been taken into account.

[1] CBD, Article 2.
[2] IUCN Fact Sheet 2008: State of the World's Species, see www.iucnredlist.org (accessed 14 January 2010).
[3] See IUCN: Species Extinction – The Facts (2007), www.iucn.org (accessed 23 January 2010).
[4] Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) 1.
[5] CBD, Preamble, second recital.
[6] See Chapter II for an overview of the most significant regional and international legal instruments.
[7] Ramsar, 2 February 1971, in force 21 December 1975; 996 UNTS 245; the full text of the convention is also available on the website: www.ramsar.org.
[8] Paris, 16 November 1972, in force 17 December 1975; 11 ILM (1972) 1358; the full text of the convention is also available on the website http://whc.unesco.org.
[9] Washington, 3 March 1973, in force 1 July 1975; 993 UNTS 243; the full text of the convention is also available on the website: www.cites.org.
[10] Bonn, 23 June 1979, in force 1 November 1983; 19 ILM (1980) 15; the full text of the convention is also available on the website: www.cms.int.
[11] Rio de Janeiro, 5 June 1992, in force 29 December 1993; 31 ILM (1992) 818; the full text of the convention is also available on the website: www.cbd.int.
[12] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992)
[13] Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998); see Chapter III, section 2 for more information on these and other studies.
[14] All but the secretariat of the CMS responded.
[15] Ramsar Convention, Preamble, fourth recital.
[16] World Heritage Convention, Preamble, sixth recital.
[17] See CITES website: www.cites.org.
[18] CMS, Article II, paragraph 1.
[19] CMS, Article II, paragraph 2.
[20] CBD, Article 1.

CHAPTER I: BIODIVERSITY AND THE NEED FOR PROTECTION

1. Biodiversity in Decline

Biological diversity, or biodiversity, sometimes described simply as 'diversity of life on earth', is the product of over three billion years of evolution. But what exactly is biodiversity? A useful and up to date definition is the one laid down in the Convention on Biological Diversity (CBD):

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.[1]

The concepts 'species' and 'ecosystems' play a central role in the CBD definition of biodiversity and need further clarification. A species can be described as 'a population whose members are able to interbreed freely under natural conditions'.[2] The CBD gives the following definition of an ecosystem: 'a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit'.[3]

Although extensive research has been carried out in the past decades, our knowledge of species is still limited. For instance, the current number of species that exists in the world is not known. So far around 1.75 million species have been described,[4] but estimates of the total number of species vary from 5-30 million.[5] Millions of species have not yet been identified, let alone documented. However, there is general agreement among scientists that the species extinction rate has risen dramatically in recent times due to human activity.

The World Conservation Union (IUCN) started with Red Data Books and its Red List for species in the early 1960s and has now built up the most comprehensive database of threatened species and species that are extinct.[6] The 2008 IUCN Red List of Threatened Species reveals that 21% of described mammal species, 12% of bird species and 30% of amphibian species are classified as globally threatened.[7] In relation to plants, experts indicate that of the estimated 380,000 plant species, one in five are threatened with extinction.[8] Obviously, the overall trend is very worrying.

Scientists have estimated that the current species extinction rate is between 1,000 and 10,000 times higher than the expected natural extinction rate.[9] One scientist has stated that we currently lose over 3,000 species per year and that over the next hundred years about 50% of all species will have disappeared.[10] It is generally accepted that we are now facing the sixth major extinction event in the Earth's history, this time caused by human activity. In a recent study, scientists have claimed that 'the world cannot sustain the current rate of loss of species without resulting in functional collapses'.[11]

The status of ecosystems is equally important and extensive research, referred to as the Millennium Ecosystem Assessment, was carried out in this area between 2001 and 2005.[12] This resulted in the first comprehensive global evaluation of the world's major ecosystems conducted by 1,300 experts from 95 countries. They studied the different types of the world's ecological systems, such as marine, coastal, island, urban, dryland, polar, forest, cultivated, inland water and mountain systems.[13] Many of the findings are disconcerting. For example, it is estimated that 50% of inland water systems (excluding large lakes) has been lost globally,[14] while between 1985 and 2005 an annual average of 12 million hectares

of tropical forest has been cleared.[15] One of the overall conclusions of the Millennium Ecosystem Assessment is that 'over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any other comparable period of time in human history, largely to meet accelerating demands for food, fresh water, timber, fibre and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth, while 'the degradation of ecosystems services could grow significantly worse during the first half of this century'.[16]

Of the various human activities that have caused the loss of biodiversity, land use conversion is at the top of the list.[17] Many important ecosystems, such as forests and wetlands, have fallen victim to clearing for agricultural uses, tree plantations, urbanisation, infrastructure projects or other developments.[18] Over a third of the world's land surface has been converted to human use.[19] One of the most dramatic examples of land use conversion is taking place in the Brazilian Amazon, often referred to as the world's greatest storehouse of biodiversity. About 15% of this tropical rain forest has been cleared in the past five decades, to a large extent illegally. This equals an average annual loss of five million acres.[20] Some activities, such as road and dam building, often lead to fragmentation of habitats. As a consequence, the vulnerability of species increases, since population sizes in fragmented habitats are reduced, possibly leading to a rise in inbreeding and disease. At the same time poachers are offered easier access.

The impact on biodiversity of transport infrastructure networks has been the subject of research in many developed countries. It appears that each day in the USA, 190 million motor vehicles on the four million miles of roads kill one million larger animals.[21] For the United Kingdom, it is estimated that at least 10 million birds and mammals are annually killed on its roads.[22]

The second important driver of biodiversity loss is the introduction of invasive alien species. When an invasive (non-native) animal, plant or micro-organism is accidentally or deliberately transported from its native environment and brought into an alien environment, it can have disastrous consequences. Especially where few or no predators are present, its population may increase rapidly, usually to the detriment of native species. One of the many examples is the introduction in the United Kingdom of the grey squirrel from North America in the late 19th century. The 'greys' out-compete the native 'reds' for food and carry a virus that is lethal to the 'reds'. This has severely diminished the population of the latter, which is now threatened with extinction.[23] In Brazil, wild boars, golden mussels and African snails, as well as dozens of other invasive alien species, are causing great harm to the native flora and fauna. Similar problems occur around the globe. It has been estimated that invasive alien species cause annual worldwide losses in the hundreds of billions of US dollars.[24]

Exploitation in the form of trading, hunting, collecting and fishing can also have serious repercussions for species and their ecosystems. The international trade in plant and animal specimens is estimated to be worth billions of dollars annually, of which a large percentage is illegal.[25] Tropical fish, birds and other animals are taken from the wild and sold as pets. Turtles, whales and sharks are in demand as delicacies and tigers and rhinos are killed for their body parts, which are used in traditional medicine. Plants, feathers and eggs are sought after by collectors and thousands of elephants are killed annually for their ivory. Over-fishing has resulted in the collapse of many fish species, such as the Atlantic salmon and cod. And these are just a handful of examples.

Nutrient loading is another important cause of biodiversity loss. It has a detrimental effect

on many terrestrial, freshwater and coastal ecosystems. From the 1950s, the use of nitrogen as fertiliser has dramatically increased food production, but has also led to a reduction of plant diversity and the occurrence of algal blooms and eutrophication in water bodies, which affect the water quality and can reduce or eliminate fish populations.[26]

A relatively new threat to biodiversity is climate change.[27] Climate change is leading to global environmental change at a much faster pace than ever experienced before. According to Charles Darwin's theory of natural selection, the organisms that are best fitted for survival breed and pass on their features to the next generation (the survival of the fittest). In this way a species evolves over a very long period of time. The question is whether species will be able to cope with much more rapidly changing environmental conditions, since they might not have enough time to adapt through natural selection. Consequently, climate change may lead to the extinction of species. A good illustration of this development is the situation in the Arctic region. Due to climatic warming, the sea ice is breaking up weeks earlier now than it did 30 years ago. This leaves polar bears with less time to feed and store the fat they need to survive on shore until the sea freezes over again. Some populations of polar bears have already declined, and especially the cubs seem vulnerable.[28] The uncertainty about the exact effects of human-caused climate change on biodiversity, can be expected to gradually lift in the coming years.[29]

It is important to realise though that all these human activities that bring about the loss of biodiversity can be seen as symptoms of the central causes of the problem. Population growth and increasing consumption of resources per capita top the list of fundamental causes leading to environmental decline in general and biodiversity loss in particular. In the 20th century the world's population has more than quadrupled, from one and a half billion to over 6 billion. This growth is still continuing today, predominantly in the developing world. The enormous expansion of the human species in the developed world has now levelled off and its numbers are stabilising.[30] With the population growth came an increase of human consumption of resources that, according to many studies, has already surpassed the regenerating ability of the earth.[31] The population issue has been discussed at international conferences and although it proved impossible to agree on a treaty, a programme of action was accepted by 179 states at the International Conference on Population and Development (ICPD) in Cairo in 1994.[32] In this document the interconnections between reproductive health, a sustainable environment and economic development are recognised and each participating state is encouraged to promote access to family planning, reproductive health services and education for women and girls.[33]

Ignorance about species and ecosystems is seen as another of the fundamental causes of the loss of biodiversity. As discussed earlier, the total number of species is unknown and only a fraction of the world's species have been named. Knowledge about the functioning of ecosystems is also limited. Certain government policies stimulating industries such as agriculture, forestry or fishery to the detriment of biodiversity can be added to the list of root causes too. Other fundamental causes that have been identified as leading to biodiversity loss are the effects of globalisation, the inequity of the distribution of resources and the market failure with regard to the monetary value of biodiversity.[34] In relation to the latter cause, an UNEP-led study on The Economics of Ecosystems and Biodiversity (TEEB) was launched in 2007 and finalised in 2010. The study examines the global economic benefits of biodiversity, and analyses the costs of its loss due to failure to take protective measures versus the costs of effective conservation.[35]

2. The Importance of Biodiversity

Why is it important to protect biodiversity? The answer is not as straightforward as might be expected, since the knowledge about the consequences of biodiversity loss is still rather limited. A strong argument for defending the protection of biodiversity is the ethical argument that humans are responsible for the well-being of all other species on the planet and do not have the right to destroy life on Earth. The presumption of this non-anthropocentric argument is that species and ecosystems have an independent right to continue their existence. A variation on the ethical argument is that humans are charged with the responsibility to protect the earth for future generations of humans, other animals and plants. The notion 'future generations' has gained popularity since it was introduced to the general public by the Brundtland Commission in 1987 in its definition of 'sustainable development' as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[36] This concept of intergenerational equity has been elaborated in a number of theories.[37]

Where biodiversity is under pressure, ecosystems are as well, since the two are closely interlinked. The immense value of the services provided by ecosystems has become increasingly clear, creating a powerful argument for biodiversity's protection. Ecosystem services include fresh water, food, wood, fuel, and pollination, but also the regulation of climate, flooding and disease. Ecosystems also provide cultural services such as aesthetic, educational and recreational benefits. People appreciate the beauty of nature in all its aspects and it has been one of the greatest inspirations for artists over the centuries. The problem with the ecosystem services argument to protect biodiversity is that many of nature's services are undervalued or not valued at all. For most people, clean water and air are a given. According to some commentators the key to successful protection of biodiversity is to put a fair value on the ecosystem services it provides.[38] The TEEB study addresses this issue. It indicates for instance in one of its reports that a year's natural capital loss under a 'business as usual' scenario would result in a loss of ecosystem services worth about USD 2.0-4.5 trillion over a period of 50 years.[39]

The more readily identifiable economic benefits of biodiversity make another case for its protection.[40] The pharmaceutical industry is on the list of sectors that depend on biodiversity. Many pharmaceutical drugs are based on or were inspired by plants and fungi.[41] Morphine and penicillin are two well-known examples. The nature-based tourism and recreation industry is another biodiversity-related sector that is of major significance to most economies, especially those of the developing countries.[42]

It has been widely recognised that for the protection of biodiversity the ethical argument alone is not sufficient and that ecosystem services and economic arguments need to be put forward as well to counter its decline.[43]

3. Protection in Practice

The protection of biodiversity by setting aside areas of natural or semi-natural land is one of the most important methods used to address the threat of land use conversion and exploitation of species. The Yellowstone National Park in the United States, founded in 1872, is considered to be the first example of this approach. Since then, the number of protected areas has increased to 10,000 in 1962 and on to more than 100,000 in 2003 with a

total terrestrial surface area of almost 12%.[44] The number of marine protected areas is relatively small and covers only 0,5% of the total area of the marine environment.[45]

A protected area is defined in the Convention on Biological Diversity as 'a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives'.[46] In practice, there is a huge variety in conservation objectives as well as in terminology used. To bring some structure in this variety and to avoid confusion, the IUCN has classified protected areas in the following six categories (of which the first is subdivided in two parts):[47]

Category Ia: Strict nature reserve: strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.

Category Ib: Wilderness area: large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

Category II: National park: large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.

Category III: Natural monument or Feature: protected areas set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

Category IV: Habitat Species management area: protected areas aiming to protect particular species or habitats and management reflects this priority. Many of these protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

Category V: Protected landscape/seascape: protected areas where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity is vital to protecting and sustaining the area and its associated nature conservation and other values.

Category VI: Protected Area with sustainable use of natural resources: protected areas which conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

Although the protected areas' share of almost 12% of the terrestrial surface may look impressive, it is important to realise that many sites remain poorly protected in practice and are often referred to as 'paper parks'.[48] Furthermore, there are still gaps in the protected area systems. Areas that are low in biodiversity, such as deserts, tundras and icecaps, are less challenging to protect and therefore often more acceptable candidates for preservation than forests and lowland plains that are richer in biodiversity and therefore economically more important.[49]

In 1975, a system has been developed classifying the world into eight biogeographic realms, 203 biogeographic provinces and 14 biomes.[50] In 2003, the United Nations Environment Programme (UNEP) together with the World Conservation and Monitoring Centre (WCMC) made an estimate of the size and share of the protected area within each type of major habitat based on this system. It appeared that five of the 14 terrestrial biomes, including for instance lake systems and temperate grassland, had not met the 10 percent coverage that the IUCN has set as a minimum level of conservation for each biome.[51]

To reverse the downward trend of biodiversity, restoration of habitats and ecosystems has now become an increasingly important method and many countries are active in this area. As long as some features remain of those present before land use conversion took place, almost all types of ecosystems can be restored.[52] Usually, the costs of restoration are high and the results hardly ever match the original.[53] Other important and relatively new steps taken to prevent the further degradation of ecosystems are the integration of biodiversity issues in the planning system as well as in management practices in sectors such as agriculture, forestry and fisheries.

A point of particular interest is the problem of fragmentation. Even the creation of protected areas may not prevent the subdivision of areas into smaller patches. This increases the vulnerability of species. To address this issue, corridors should be created to enable certain species to find new territories. For instance under-and over-passages have been put in place to assist animals to safely cross busy roads. Other effective corridors are the hedgerows, which are a long established feature of the UK and Irish countryside. Even so, the protection of natural corridors and the creation of new ones are still at an early stage.

The various methods of habitat and ecosystem protection alone are not always sufficient to prevent individual species from becoming endangered or extinct as a result of human activities. In many cases, specific plants and animals need immediate protection and countless national and international initiatives focusing on individual species have been developed. There are numerous species or groups of species that are legally protected. International agreements are for instance in place to protect polar bears, vicuñas, bats, albatrosses and a long list of other species.[54] Another international agreement has been adopted to protect endangered species against harmful international trade.[55] Additional national legislation has been developed by most states to protect endangered native species. Many other initiatives have been launched that are not legally binding. Recent examples are the great ape survival project (GRASP), an initiative of UNEP, joined later by UNESCO,[56] and the global amphibian conservation action plan to fight amphibian extinctions, of which the IUCN is the originator.[57] The danger caused by alien species has now been fully recognised and where their presence is threatening the survival of native species, eradication programmes have often been introduced.[58]

Ex-situ programs, in which zoos, wildlife parks and botanical gardens play an important role, have also become an indispensable manner to protect species. Breeding programmes have been developed with the intention to reintroduce species to their natural environment at a later stage. If all efforts fail, there may be recourse to genetic preservation of threatened species, *i.e.* genetic material of species stored for possible future use. In relation to flora species, this form of protection is already well developed. Several so-called seed banks have been set up. One of these is managed by the Royal Botanic Gardens, Kew, UK. This seed bank has now collected and conserved 10% of the world's plants and the aim is to bring this percentage up to 25% in 2020.[59]

4. Conclusion

This introductory chapter discusses in some detail the decline in biodiversity and its causes, as well as the importance of biodiversity and the approach to its conservation. Although data in relation to the status of biodiversity are far from complete, there is little doubt that as a result of human activities a growing number of species and ecosystems are seriously threatened. Notwithstanding the fact that the causes are well-known and the arguments for conservation compelling, the various measures to protect biodiversity have not yet reversed the trend. There have been some achievements though. A variety of methods have been developed and employed to protect ecosystems and species against land use conversion and other threats. Many protective measures have been laid down in the form of legislation. Since the decline of biodiversity is a global problem, this legislation is often regional or international in nature. The effectiveness of this legislation will be crucial in halting the further decline of biodiversity. The key question examined in this study is whether the most important international biodiversity-related conventions are successful in addressing the problems that led to their creation.

[1] CBD, Article 2.
[2] See Wilson E., *The Diversity of Life* (London, 1992) 38.
[3] CBD, Article 2.
[4] See Chapman A., *Numbers of Living Species in Australia and the World* (Canberra, 2009) 3, www.environment.gov.au/biodiversity/abrs/publications/other/species-numbers (accessed 2 October 2009).
[5] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) 36.
[6] The IUCN uses nine categories: extinct, extinct in the wild, critically endangered, endangered, vulnerable, near threatened, least concern, data deficient, not evaluated; threatened species are those listed as either critically endangered, endangered or vulnerable.
[7] See www.iucnredlist.org (accessed 14 January 2010).
[8] See www.kew.org/about-kew/press-media/press-releases-kew/srli/index.htm (accessed 21 June 2011)..
[9] See IUCN: Species Extinction – The Facts (2007), www.iucn.org (accessed 23 January 2010); see also Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) 36.
[10] See Meyer S., 'End of the Wild: The extinction crisis is over. We lost' (2004) *Boston Review*, V.29(3-4).
[11] See Rockström J. et al., 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity' (2009) 14(2) *Ecology and Society* 32, available on www.ecologyandsociety.org/vol14/iss2/art32/.
[12] Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005).
[13] Ibid., 31, table 1.1.
[14] Ibid., 30.
[15] Ibid., 29.
[16] Ibid., 1.
[17] CBD defines 'biodiversity loss' as 'the long-term or permanent qualitative or quantitative reduction in components of biodiversity and their potential to provide goods and services, to be measured at global, regional and national levels'; CBD Decision VII/30 (2004), paragraph 2.
[18] Wilson E., *The Future of Life* (London, 2002) 58.
[19] Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 31.
[20] Ibid., 36.
[21] Such as mammals, birds, reptiles and amphibians; see www.santacruzhub.org/pp/roadkill/stats.htm (accessed 25 January 2010).
[22] See ——, 'Roadkill: One from the road' *The Independent* (7 September 2006).
[23] Grey squirrels outnumber reds by 66 to 1; see Minchin R., 'Last-ditch plan to save red squirrels launched' *The Independent* (9 November 2005).
[24] See Pimentel D. et al., 'Economic and environmental threats of alien plant, animal, and microbe invasions' (2001) 84 *Agriculture Ecosystems & Environment* 13, available on www.elsevier.com.
[25] See the CITES and TRAFFIC websites for more information: www.cites.org and www.traffic.org.
[26] Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) 69.
[27] In the UN Framework Convention on Climate Change of 1992 'climate change' is defined in Article 1 as 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods'.
[28] See for more information the website of the IUCN/SSC Polar Bear Specialist Group: http://pbsg.npolar.no.
[29] See Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 32.
[30] Ibid., 121.
[31] See for instance Millennium Ecosystem Assessment: *Ecosystems and Human Well-being: Synthesis* (Washington, 2005).
[32] See www.un.org/popin.
[33] Ibid.
[34] World Resources Institute, *World resources 1992-1993* (New York, 1992), reproduced by CIESIN on www.ciesin.columbia.edu/docs/002-616/002-616.html; see also Wilson E., *The Future of Life* (London, 2002) 50.
[35] See for detailed information www.teebweb.org.

[36] World Commission on Environment and Development, *Our Common Future* (Oxford, 1987); see also Chapter II.
[37] See for instance Gillespie A., *International Environmental Law, Policy and Ethics* (Oxford, 1997) Chapter VI.
[38] See for instance Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 27.
[39] See TEEB Interim Report (May 2008) available on www.teebweb.org.
[40] See Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 29.
[41] See www.plantlife.org.uk/international/plantlife-med-plants-what-are-med-plants.htm.
[42] See for instance Christ C., *Tourism and Biodiversity: Mapping Tourism's Global Footprint* (2003); available on www.conservation.org.
[43] See for instance a press release from the European Commission, 'Environment: Commission calls for a shakeup in EU biodiversity policy', dated 28 April 2009 (reference: IP/09/649).
[44] 3,4% of the Earth's total surface.
[45] See www.cbd.int for detailed information on protected areas; see also Chape S. et al., 'Measuring the extent and effectiveness of protected areas as an indicator for meeting global biodiversity targets' (2005) 360 *Phil. Trans. R. Soc. B*.
[46] CBD, Article 2.
[47] See www.iucn.org/about/work/programmes/pa (accessed 28 January 2010).
[48] See Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 31 and Wilson E., *The Future of Life* (London, 2002) 163.
[49] See for instance Dudley N. (Ed.), *Guidelines for Applying Protected Area Management Categories* (2008), available on www.iucn.org/publications.
[50] Framework developed by Miklos Udvardy for UNESCO/IUCN.
[51] See Mulongoy K., Chape S. (Eds.), *Protected Areas and Biodiversity: An overview of key issues* (CBD Secretariat and UNEP-WCMC, 2004) 27-28.
[52] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) 98.
[53] Ibid.
[54] See Chapter II and Chapter VII, sub-section 2.5 for more information on these agreements.
[55] CITES, see Chapter VI.
[56] See www.unep.org/GRASP.
[57] See www.amphibian.org.
[58] CBD Decision VI/23 (2002): Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Aien Species that Threaten Ecosystems, Habitats or Species.
[59] See www.kew.org/ (accessed 28 January 2010).

CHAPTER II: HISTORICAL OVERVIEW

1. Introduction

The unparalleled economic development in the twentieth century has had as one of its downsides a significant negative impact on the quality of the environment, including a substantial loss of biodiversity.[1] In response, the international community gradually initiated international policies and legislation to address this degradation. The five biodiversity-related conventions that are assessed in this study, the Ramsar Convention, the World Heritage Convention, CITES, the CMS and the CBD, should not be looked at in isolation, but placed against the background of decades of international environmental policy developments that include the realisation of a large number of other biodiversity-related conventions, agreements and programmes. A closer look at the milestones of this period can help clarify the reasons for these conventions, the form in which they were drafted as well as their subsequent development.

To reflect the different phases of the development of international environmental law in general and biodiversity-related instruments in particular, this chapter's historical overview is divided in three periods: 1940-70 (Early Days), 1970-90 (Era of Change) and 1990-present (Coming of Age). In the 1940-70 period, it became clear that natural resources are finite and in certain cases need protection against over-exploitation, but this insight was still rooted in a narrow economic view. However, the focus broadened in the 1970-90 period when the term 'sustainable development' struck a sympathetic chord and the ethical argument to protect biodiversity gained influence. The growing environmental problems convinced many that a more structural approach was needed to find solutions and that the international institutional framework had to be improved as well. The third period discussed in this chapter, which covers the 1990s up till now, has been especially important because of the far-reaching international legislation that was adopted and the emergence of a distinct emphasis on achieving concrete results.

In this chapter, each section that discusses one of these three periods is subdivided into two sub-sections. The first will give an overview of successive relevant international developments that took place at the time. In the second sub-section, a short description is provided of the main biodiversity-related instruments that were signed during the period. Most of these have the protection of biodiversity in some form or another as their main objective. Others are not directly aimed at the protection of biodiversity, but are still very relevant to its conservation. An example is the Convention to Combat Desertification.[2] The aim of this convention is to redress the problem of land degradation, but by doing so biodiversity will benefit as well.

2. Early Days (1940-70)

2.1 Important International Developments

Already in the 19th century, as industrialisation and development gained momentum, a gradually growing body of opinion insisted that the natural environment needed some form of legal protection against the increasing human interference. This concern led for instance

to the creation of the first national park to be protected by law in 1872, the Yellowstone National Park in the USA.[3]

One of the first international issues to be addressed through the medium of international law concerned high sea fisheries. Several bilateral fisheries conventions were signed during the second half of the 19th century with the intent to address over-exploitation of certain species of fish.[4]

Another example of an early treaty protecting nature was the 1900 London Convention Designed to Ensure the Conservation of Various Species of Wild Animals in Africa Which Are Useful to Man or Inoffensive (1900 London Convention).[5] This was the first treaty intended to protect wildlife from hunting; in this case within European colonies in Africa. Its measures included export restrictions on skins and furs.

During the first half of the 20th century, the influence of environmental organisations grew stronger and the importance of scientific information became more and more established. Two significant examples of this development are the 1902 Convention to Protect Birds useful to Agriculture,[6] and the 1913 Act of Foundation of a Consultative Committee for the International Protection of Nature.[7] The former of these treaties dealt with the protection of migratory birds and was initiated by a non-governmental organisation.[8] The latter had as its objective to collect, classify and publish information concerning the international protection of nature. Seventeen states signed the act, but the outbreak of the First World War caused the initiative's early demise.[9]

The development of international law for the protection of biodiversity began to gain importance after the Second World War. The establishment in 1945 of the United Nations was a significant event for the further advancement of international environmental law. Initially, the UN Charter did not provide the organisation with an explicit mandate to deal with environmental issues. However, the Resolution of the Economic and Social Council (ECOSOC) in 1947 clearly established the competence of the UN over environmental matters. The UN is the premier forum to initiate, discuss and create international law as there is no other international institution with a similar broad mandate. It currently has 192 member states.[10] In the same year that saw the ECOSOC Resolution accepted, the United Nations Conference on the Conservation and Utilisation of Resources (UNCCUR) was convened. This was the first UN initiative concerning the environment, and although the UNCCUR did not achieve much progress on substantive matters, it nevertheless identified most of the major environmental issues that are still relevant today.[11]

One of the first UN bodies to be active in the area of international environmental law was the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Established in 1945, it currently has 193 member states.[12] The 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage and the 1971 Man and Biosphere Programme (MAB) are operating under its auspices.

Another major development for the protection and conservation of the environment was the establishment in 1948 of the International Union for the Protection of Nature (IUPN), which changed its name to the International Union for the Conservation of Nature and Natural Resources (IUCN) in 1956 and is now also known as the World Conservation Union.[13] The organisation is unique in the sense that its members are states and government agencies as well as NGOs. Today, its membership of almost 1,100 comprises 80 states, 115 government agencies, 93 international NGOs, 750 national NGOs and 29 affiliate members.[14] It is the world's oldest and largest global conservation body. Its wide range of activities include supporting and developing conservation science, implementing this

knowledge in field projects around the world and providing policy advice and technical assistance, such as the drafting of environmental laws, to governments, UN organisations and the institutions of international conventions.

2.2 Relevant Biodiversity-Related Instruments

Several international conventions that were and in some cases still are relevant to the protection of biodiversity, were agreed upon in this period:

— 1940 Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere;[15]
— 1946 International Convention for the Regulation of Whaling;[16]
— 1950 International Convention for the Protection of Birds;[17]
— 1951 FAO International Plant Protection Convention;[18]
— 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas;[19]
— 1968 African Convention on the Conservation of Nature and Natural Resources.[20]

The 1940 Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (**Western Hemisphere Convention**) was signed under auspices of the Pan-American Union, now the Organisation of American States (OAS).[21] The main objective of the convention is to 'protect and preserve in their natural habitat representatives of all species and genera of their native flora and fauna, including migratory birds, in sufficient numbers and over areas extensive enough to assure them from becoming extinct through any agency within man's control'.[22] Parties to the convention include the United States, Canada (since 1990) and many Latin American states. It was a revolutionary convention at the time. Parties agreed to explore the possibility of establishing national parks, nature reserves, nature monuments and strict wilderness reserves as defined by the convention,[23] to strictly protect flora and fauna in national parks,[24] and to maintain strict wilderness reserves inviolated.[25] Unfortunately, not much has been achieved. The main reason appears to be the lack of a coordinating body to promote and monitor the convention. There has been some discussion within OAS to reinvigorate the convention,[26] but there are no signs that this will happen anytime soon.

The impact of the 1946 International Convention for the Regulation of Whaling (**International Whaling Convention**) has been more significant. It was adopted by fifteen whale hunting states, when it became clear that most whale species were close to extinction. The convention's objective is to 'provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry'.[27] A system of quotas was introduced, but stocks did still not recover. Subsequently, a five-year moratorium was agreed upon in 1982. The moratorium is still in place, but with some exceptions.[28] The International Whaling Commission (IWC) was set up under the convention to monitor the measures agreed by the parties, such as the designation of whale sanctuaries and the compilation of catch reports and other records. Today, 88 states are a party to the convention.[29]

The 1950 International Convention for the Protection of Birds (**Birds Convention**) and the 1958 Convention of Fishing and Conservation of the Living Resources of the High Seas (**High Seas Conservation Convention**) have both not been very successful and can now be

seen as 'sleeping treaties'. The conservation of wild birds is the main objective of the 1950 Birds Convention, but it suffered from too many exceptions, a limited number of parties and a lack of institutional framework and financial arrangements.[30] The 1958 High Seas Conservation Convention was signed with the intention to conserve the living resources of the high seas by limiting the fishing activities of the parties, but it never received sufficient support from the coastal fishing states.[31]

It was the United Nations FAO Conference that adopted the International Plant Protection Convention (**IPPC**) in 1951. The aim of the IPPC is to secure action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control. The Secretariat of the convention is provided by FAO. The convention currently has 172 parties.[32]

The 1968 African Convention on the Conservation of Nature and Natural Resources (**African Nature Convention**) was initiated by the Organisation of African Unity (OAU, now the African Union) and signed by 40 African states. The objective of the Contracting States as laid down in the convention is 'to adopt the measures to ensure conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people'.[33] The convention covers many environmental issues including the protection of flora and fauna,[34] the regulation of traffic in specimens and trophies,[35] and the protection of conservation areas.[36] Unfortunately, the convention has made little difference, which to some extent can be attributed to the lack of an institutional framework.[37] In 1980, an initiative was taken by the Contracting Parties to revise the convention to bring it more in line with the latest developments in international law, including the move towards sustainable development. This revised Convention on the Conservation of Nature and Natural Resources was signed on 11 July 2003.[38]

3. Era of Change (1970-90)

3.1 Important International Developments

By the early 1970s, it became clear that the international environmental instruments were too fragmented and that their effect was disappointing. It was recognised that a more coherent strategy towards international environmental legislation was needed.

The 1972 UN Conference on the Human Environment in Stockholm addressed this issue. During the conference, three non-binding instruments were adopted: a resolution on institutional and financial arrangements, a declaration containing 26 principles, and an action plan containing 109 recommendations. The two most significant developments that these instruments brought about were the establishment of the United Nations Environment Programme (UNEP) and the adoption of Principle 21 as one of the 26 principles. Principle 21 affirmed the responsibility of states to ensure that activities within their jurisdiction or control do not cause damage within another state or beyond national jurisdiction, such as in outer space or on the high seas.[39]

The creation of UNEP in 1972 as the UN body fully dedicated to environmental issues, including the development of international environmental law, was a major step forward. Its headquarters are based in Nairobi, Kenya. Many regional and several global environmental treaties that followed were concluded within the UNEP framework, including the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora, the 1979

Convention on the Conservation of Migratory Species of Wild Animals, and the 1992 Convention on Biological Diversity. In 1982, the foundation for UNEPs legal activities was laid by the adoption of the Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme). This programme is a strategic guidance document and forms the basis for the promotion and development of international environmental law.[40]

In the same year, the World Charter for Nature was adopted by the UN General Assembly. A non-binding instrument, the charter sets forth 'principles of conservation by which all human conduct affecting nature is to be guided and judged'.[41] Three distinctive features of the charter are the emphasis on the protection of nature as an end in itself,[42] the recognition of the importance of the participation of NGOs in the formulation of decisions, and the acknowledgement of the need for access to means of redress when the environment suffers damage.[43]

The increasing influence of NGOs also became evident in the 1980 World Conservation Strategy and its updated version in the form of the 1991 document 'Caring for the Earth: A Strategy for Sustainable Living'. These documents were prepared by the International Union for the Conservation of Nature (IUCN), the United Nations Environment Programme (UNEP), the World Wide Fund for Nature (WWF), the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the Food and Agriculture Organisation (FAO). Although the World Conservation Strategy only contains recommendations, it has helped shape conservation strategies on national and international level.[44]

An event of major importance in the history of international environmental law was the publication in 1987 of the Brundtland Report 'Our Common Future'.[45] This report was drafted by the World Commission on Environment and Development (WCED), which had been established by the UN General Assembly in 1983 and was chaired by Gro Harlem Brundtland, the Prime Minister of Norway at the time. The report depicts a detailed and rather grim overview of the state of the environment and also presents a list of recommendations for change. Although the term 'sustainable development' had been used before, the Brundtland Report coined sustainable development as a guiding principle for international action. The report resulted in the planning of a UN Conference on Environment and Development (UNCED). At the same time, an Experts Group on International Law was set up, and this group proposed Legal Principles and Recommendations on Environmental Protection and Sustainable Development.[46]

Simultaneously with the preparation of the Brundtland Report, the 'Environmental Perspective to the Year 2000 and Beyond' was produced by the UNEP intergovernmental preparatory committee at the request of the UN General Assembly. This 'Environmental Perspective' was intended to be used as a framework to guide national action and international co-operation in policies and programmes aimed at achieving sound environmental development. It was adopted by the General Assembly in 1987.[47] Just as in the Brundtland Report, the focus of this publication was on the following six key issues: population, food and agriculture, energy, industry, health and human settlements, and international economic relations. Four additional areas for special attention were identified by the committee as well: oceans and seas, outer space, biological diversity, and security and environment.[48]

3.2 Relevant Biodiversity-Related Instruments

During the 1970s and 80s many important biodiversity-related conventions were signed, including four of the five conventions that will be assessed in this study. The following instruments will briefly be discussed in this sub-section:

- 1971 UNESCO Man and Biosphere Programme;[49]
- 1971 Convention on Wetlands of International Importance Especially as Waterfowl Habitat;[50]
- 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage;[51]
- 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora;[52]
- 1973 Agreement on the Conservation of Polar Bears;[53]
- 1976 Convention on Conservation of Nature in the South Pacific;[54]
- 1979 EEC Wild Birds Directive;[55]
- 1979 Convention on the Conservation of Migratory Species of Wild Animals;[56]
- 1979 Convention on the Conservation of European Wildlife and Natural Habitats;[57]
- 1979 Convention for the Conservation and Management of the Vicuña;[58]
- 1982 UN Convention on the Law of the Sea;[59]
- 1982 EEC Council Regulation on the Implementation in the Community of CITES;[60]
- 1983 International Tropical Timber Agreement;[61]
- 1985 Association of South East Asian Nations Agreement on the Conservation of Nature and Natural Resources.[62]

UNESCO started the Man and Biosphere Programme in 1971 (**MAB Programme**). Biosphere Reserves are defined as 'areas of terrestrial and coastal ecosystems, promoting solutions to reconcile the conservation of biodiversity with its sustainable use'.[63] Under the programme, which is not legally binding, states can nominate such reserves, which must be designated by the International Co-ordinating Council of the MAB Programme. Meanwhile, 107 states have established 553 biosphere reserves.[64] The objective of the programme is to promote and demonstrate a balanced relationship between humans and the biosphere.[65] In the biosphere reserves, three functions are combined: conservation of landscapes, ecosystems and genetic variation; economic and human development that is socio-culturally and ecologically sustainable; and demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development.[66] The biosphere reserves form a worldwide network formally constituted by a Statutory Framework, which was agreed upon in 1995. The International Co-ordinating Council designates and monitors the reserves and is assisted by an Advisory Committee and a Secretariat, which are provided by UNESCO. Wetlands have been neglected and destroyed by humans for centuries and the 1971 Convention on Wetlands of International Importance Especially as Waterfowl Habitat (**Ramsar Convention**) was adopted in the Iranian city of Ramsar with the objective 'to stem the progressive encroachment on and loss of wetlands now and in the future'.[67] It is the first global treaty for the conservation of a certain type of habitat. The measures that are laid down in the convention include the designation by the parties of wetlands within their

territories for inclusion in a List of Wetlands of International Importance.[68] These and other wetlands should be protected by the parties[69] and managed in such a way that waterfowl populations will increase.[70] Although the convention started with only seven parties, this number has now increased to 159.[71] The principal body of the convention is the Conference of the Parties (COP) and its participants meet at least every three years. The activities of its Secretariat are overseen by the Standing Committee, which also makes recommendations for consideration at the COP meetings. The convention is considered to be one of the five major global treaties that should address the rapid decline of biodiversity and its effectiveness will be assessed in Chapter IV of this study.

Also to be assessed in this study is the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage (**World Heritage Convention**).[72] This convention states as its main objective 'that parts of the cultural and natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole'.[73] Properties that are deemed to be of 'outstanding universal value' are to be included in the World Heritage List of the convention, based on the concept that these World Heritage sites belong to all the peoples of the world. The number of proposed sites that can be submitted by the parties is unlimited, but a lengthy and demanding procedure has to be followed to get a site listed. When becoming a party to the convention, a state has to ensure that 'effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage'.[74] The convention now has 186 parties and 890 protected sites, of which 176 are natural heritage sites.[75] The World Heritage Committee is the most important body of the convention. It has 21 members, who are elected for a period of six years by the General Assembly in which all parties are represented. The committee members meet every year to discuss and decide on all matters concerning the implementation of the convention. Furthermore, the institutional framework includes a Bureau, a Secretariat and three Advisory Bodies.[76]

The 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (**CITES**) was signed with the objective 'to ensure that international trade in wild animals and plants does not threaten their survival'.[77] The value of international trade in wild animal and plant specimens is estimated to be worth billions of dollars annually and consists not only of live animals and plants, but also of a large variety of products derived from these, such as food and medicines, ivory, fur and timber. The protected species are listed in one of three appendices, which each offer a different level of protection. The number of parties to the convention is currently 175.[78] The convention provides for the installation of the Conference of the Parties and a Secretariat as well as for the designation by each state party of a Management and Scientific Authority. At a later stage, several other organs have been added, of which the most important are the Standing Committee and the Animals and Plants Committees. This is the third global convention that will be assessed in this study.[79]

The Agreement on the Conservation of Polar Bears (**Polar Bear Agreement**) was also signed in 1973 by the five polar bear states: Canada, Denmark, Norway, the then USSR and the USA. Since polar bear populations decreased dramatically in the 1960s and 70s, mainly due to hunting, action had to be taken to prevent the extinction of this species. The measures laid down in the agreement include the protection of polar bear habitat[80] and a ban on hunting,[81] albeit with some exceptions.[82] After these measures became effective, the polar bear populations did slowly recover. However, the erosion of the polar ice due to climate change is now posing a new threat to the survival of the species. The Polar Bear

Agreement does not provide for any monitoring body, but a Polar Bear Specialist Group working under the guidance of the IUCN's Species Survival Commission has been set up, which meets every 3-5 years to review and exchange information on progress in the research and management of the species throughout the Arctic and to review its status. Representatives of the five parties are present at these meetings.[83]

Another regional instrument is the 1976 Convention on Conservation of Nature in the South Pacific signed in Apia, Samoa (**Apia Convention**). The foundation for this convention was laid by the 1972 United Nations Conference on the Human Environment in Stockholm. Its objective is 'to take action for the conservation, utilization and development of the natural resources of the South Pacific region through careful planning and management for the benefit of present and future generations'.[84] The measures that parties should take include the creation of protected areas,[85] the preservation of national parks,[86] the maintenance of national reserves,[87] and the protection of flora and fauna.[88] The convention only has five parties: Australia, Cook Islands, Fiji, France and Samoa. On a regional level the convention is managed by the secretariat of the South Pacific Regional Environment Programme (SPREP). The SPREP is a regional organisation established in the 1980s by the governments of the countries and administrations of the Pacific region to promote cooperation and to provide assistance in order to protect and improve the environment and to ensure sustainable development. It has 25 members. The organisation's activities in relation to the Apia Convention form only a minor part of its overall responsibilities. The SPREP has indicated that the legal framework of the convention needs strengthening.[89]

The 1979 EEC Wild Birds Directive (**Wild Birds Directive**) also has a regional scope. This directive was the first piece of European Community (EC) legislation designed to protect the natural environment of the European Union (EU), which had expanded to nine member states at that time.[90] The introduction was in response to the dramatic decline in the number of bird species within the EU, mainly due to human activities. The stated objective of the Wild Birds Directive is 'the conservation of all species of naturally occurring birds in the wild state in the European territory'.[91] The most important measures of the directive can be divided in those that focus directly on the protection of wild birds and those that focus on the protection of their habitats. In relation to the latter, member states have to designate protected areas, the so-called Special Protection Areas (SPAs). To date, the 15 states that were already EU members before 2004 have by and large transposed the directive into national law. In 2004, ten new countries joined and another two did so in 2007. These countries are still in the process of implementation. The European Commission is responsible for overseeing the implementation of the directive. One of the Commissioners is responsible for the Environment Directorate-General, which comprises, amongst others, the Directorate Nature that administers the Wild Birds Directive. The Ornis Committee, which consists of representatives of the member states and the commission, assists the Directorate Nature in implementing the directive.[92]

The 1979 Convention on the Conservation of Migratory Species of Wild Animals (**CMS**) is the fourth convention that will be assessed in this study.[93] The basis for this global convention can be traced back to Recommendation 32 of the Action Plan agreed upon at the 1972 United Nations Conference on the Human Environment in Stockholm, which calls on states to develop treaties to protect species that inhabit international waters or migrate from one territory to another.[94] Animals may travel thousands of kilometres during migration, which increases their vulnerability. Cooperation between countries is necessary, since many species cross national boundaries as well as the sea. The objective of the CMS is

therefore to pay 'special attention to migratory species the conservation status of which is unfavourable, and taking individually or in cooperation appropriate and necessary steps to conserve such species and their habitat'.[95] A second objective of the convention is 'to avoid any migratory species becoming endangered'.[96] The convention has 112 parties.[97] Its institutional framework consists of a Conference of the Parties, which is the decision-making body of the convention, a Standing Committee, a Scientific Council and a Secretariat.

The 1979 Convention on the Conservation of European Wildlife and Natural Habitats (**Bern Convention**) is another example of a regional convention. It arose from the recognition that 'wild flora and fauna constitute a natural heritage of aesthetic, scientific, cultural, recreational, economic and intrinsic value that needs to be preserved and handed on to future generations'.[98] The convention operates under the auspices of the Council of Europe, which aims, *inter alia*, to seek solutions to the environmental problems that are facing Europe.[99] The objective of the convention is to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the cooperation of several states, and to promote such cooperation.[100] Endangered and vulnerable (migratory) species are given 'particular emphasis'.[101] Parties should take specific measures to protect habitats[102] as well as species.[103] The species that need special protection are listed in three appendices. Although the majority of the convention's 50 parties are member states of the Council of Europe, non-members are welcomed as well. This has resulted in six additional parties.[104] The Standing Committee is the decision-making body of the convention. Other bodies are the Bureau of the Standing Committee, the Secretariat and groups of experts.[105]

The dramatic decline of the vicuña population in the 1960s and 70s resulted in the signing of the Convention for the Conservation and Management of the Vicuña (**Vicuña Convention**).[106] Vicuñas are of commercial interest because of their highly valued fleece, which can be made into luxury, high quality garments. It used to be common practice to kill the animal in order to harvest the fibre. This practice brought the species to the verge of extinction. By 1960, about 10,000 vicuñas remained in the wild throughout the Andes range.[107] The objective of the Vicuña Convention is 'to promote the conservation and management of the vicuña'.[108] The convention is signed by the five states in whose territories vicuña populations occur: Argentina, Bolivia, Chile, Ecuador and Peru. Conservation efforts were disrupted in the 1980s as a result of instability in the region, but as of the early 1990s management programs were introduced allowing only the shearing of live vicuñas. It appears that vicuña populations have now substantially increased. The listing of the vicuña in Appendix I and, as of 1994, in Appendix II of CITES may also have contributed to this success. Representatives of the parties meet regularly to discuss the progress made under the convention.

In 1982, the UN Convention on the Law of the Sea was signed (**UNCLOS**), which is an important treaty in many respects.[109] The convention introduces a global legal order for the seas and the oceans and deals with subjects such as the limits of the territorial sea,[110] the innocent passage in the territorial sea,[111] the exclusive economic zone (EEZ),[112] and the freedom of the high seas.[113] It also covers the protection and conservation of the marine environment[114] and imposes upon states a general obligation to protect and preserve the marine environment.[115] It has 155 parties.[116] The International Seabed Authority was established to organise and control the activities in the deep seabed beyond national jurisdiction and the International Tribunal for the Law of the Sea was set up under the treaty

to settle disputes arising from the application or interpretation of the convention.[117] UNCLOS is a so-called framework convention, laying down the guiding principles at international level that parties have to take into account when implementing the convention into national law and policy, but to which can be added agreements, protocols or annexes dealing with more specific and detailed requirements and standards.[118] An example is the 1995 Agreement for the implementation of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks,[119] commonly referred to as the United Nations Fishing Agreement (UNFA). The purpose of the UNFA is to facilitate the implementation of the provisions of UNCLOS dealing with these issues.[120]

Although the EU is not yet a party to CITES, in 1982 it introduced legislation to transpose the convention into EC law, which came into effect on 1 January 1984 (**CITES Regulations**).[121] This is not surprising, since external trade rules are exclusively within the competence of the EU. The first regulation (and some additional regulations) concerning the implementation of CITES have now been replaced by two new regulations: Council Regulation 338/97 of December 1996 on the protection of species of wild fauna and flora by regulating trade therein, and Commission Regulation (EC) 865/2006 of May 2006, which lays down detailed rules for the EU member states on the implementation of Regulation 338/97. The new regulations introduce stricter trade controls and take account of scientific knowledge acquired since the adoption of the first regulation. The species included in Appendices I, II, and III of CITES as well as some additional species are included in Annex A, B, C and D of Regulation 338/97. This regulation offers a higher level of protection to listed species than CITES, especially to those species included in Appendix II of the convention. For these species import permits are required under the regulation, which is not the case under CITES. The regulation lays down the requirement for member states to impose sanctions in relation to a list of infringements.[122] An Enforcement Group has been established with representatives from each member state and a representative of the European Commission to ensure the implementation and enforcement of the regulation. A Scientific Review Group and a Committee on Trade in Wild Fauna and Flora have also been established.[123]

The worldwide concern for the decline of tropical forests has led in 1983 to the first International Tropical Timber Agreement (**ITTA**), which was renewed in 1994 and again in 2006. The objectives of the ITTA are to promote the management of tropical forests on a sustainable basis and to provide a framework for cooperation between producing and consuming states in the tropical timber industry.[124] The obligations for the parties under the agreement are very broad, such as providing data and using best endeavours to cooperate to promote the attainment of the ITTA objectives. The ITTA provides for an International Tropical Timber Organisation (ITTO), which started its work in 1986.[125] The highest authority of the ITTO is the International Tropical Timber Council, which consists of all the members of the organisation.[126] The activities of the ITTO include the development of policy documents that promote sustainable forest management and forest conservation and the assistance of tropical timber countries in implementing these policies. The Secretariat performs support services. The ITTO has 59 members.[127]

The 1985 Association of South East Asian Nations Agreement on the Conservation of Nature and Natural Resources (**ASEAN Conservation Agreement**) has been signed by ASEAN's five original member states, Indonesia, Malaysia, Philippines, Singapore and Thailand as well as by Brunei Darussalam, which joined ASEAN in 1984.[128] The objective of

the agreement is 'to maintain essential ecological processes and life-support systems, to preserve genetic diversity, and to ensure the sustainable utilization of harvested natural resources [ ] with a view to attaining the goal of sustainable development'.[129] Although signed in 1985, it has still not entered into force since three of the contracting parties have not yet ratified it.[130] Ratification or accession of all six contracting parties is necessary to bring this about. As a consequence, the agreement has not had any practical relevance to date.[131]

4. Coming of Age (1990-present)

4.1. Important International Developments

The Brundtland Report caused the General Assembly to call for a UN Conference on Environment and Development (UNCED), which led to the landmark conference in Rio de Janeiro in June 1992. The UNCED, or 'Earth Summit' as it is popularly known, proved to be highly successful. The conference was attended by 176 states, 50 intergovernmental organisations and many NGOs.[132]

The most important achievements of the UNCED were the adoption of three non-binding instruments, the opening for signature of two important treaties and the initiative for a third treaty. The three non-binding instruments were the Rio Declaration on Environment and Development (Rio Declaration), Agenda 21 and an Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forest (the UNCED Forest Principles). The treaties opened for signature were the Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC). The proposal for the third treaty concerned the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (UNCCD). These three treaties are often referred to as 'The Rio Conventions'.

The focus of the UNCED was on striking the right balance between environmental protection and economic development as well as on devising an integrated approach to environmental management. This is clearly reflected in the Rio Declaration, which lays down general principles of sustainable development in relation to international law. Overall, it can be stated that the Rio Declaration has offered an important framework for further development of national and international environmental law.[133] Agenda 21 can be described as the action plan, founded on sustainability, that sets out in forty chapters numerous more or less concrete activities. It took the global community two years to finalise this document and although it is non-binding, it forms a basis for further action. Section II of Agenda 21 (Chapters 9-22) deals with 'Conservation and Management of Resources for Development' which also includes the 'Conservation of Biological Diversity' as the subject of Chapter 15. Section IV discusses the 'Means of Implementation'.[134] The UNCED Forest Principles lay down a global consensus on the sustainable use of forests with the intention that these principles may form the foundation for a treaty on the subject.[135]

The two conventions that were opened for signature during the UNCED, the CBD and the UNFCCC, entered into force in December 1993 and March 1994, respectively . The UNCCD was adopted in October 1994 and entered into force in December 1996.

A noteworthy development that took place prior to the UNCED was the establishment in 1991 of the Global Environment Facility (GEF). The World Bank, UNEP and the United

Nations Development Programme initiated the GEF with the purpose of providing new and additional funding to projects of global environmental benefit. The GEF is mainly geared to projects that focus on issues such as climate change, biodiversity, international waters and the ozone layer.[136]

Since the UNCED, further progress has been made in many fields of international environmental law, including the area governing the protection of biodiversity. To ensure the effective follow-up of the UNCED, the UN General Assembly has established a Commission on Sustainable Development. This commission meets annually to discuss progress. In 1993 the International Court of Justice established a Chamber for Environmental Matters to deal specifically with environmental cases.

The UN Conference on Sustainable Development took place in 2002 in Johannesburg, South Africa. Although the conference was considered not to be as successful as its predecessor in 1992, an action plan and a set of principles for sustainable development were agreed upon.[137] Some key targets were set as well, including the commitment to significantly reduce the loss of biodiversity by 2010.

In 2000, the UN Secretary General requested the so-called Millennium Ecosystem Assessment (MA) with the objective to 'assess the consequences of ecosystem change for human well-being and the scientific basis for action needed to enhance the conservation and sustainable use of those systems and their contribution to human well-being'.[138] More than 1,360 natural and social scientists were involved and the results became available in 2005. The main conclusions of the MA are that in the past decades, humans have made unprecedented changes to ecosystems resulting in a substantial and largely irreversible loss of biodiversity, and that the degradation of ecosystems could further increase significantly during the first half of the 21st century. Several scenario's were presented in the MA to reverse this trend.[139]

Although by that time the establishment of a new international independent scientific body for biodiversity was already under discussion by the international community, the outcome of the MA further demonstrated the need for a body that would mirror the International Panel on Climate Change (IPCC) and should reduce the gap between science and policy in relation to biodiversity. Such a body, which has been named the International Platform on Biodiversity and Ecosystem Services (IPBES),[140] had not yet been formally established at the time of completion of this study.[141]

In 2007, the G8+5 Environment Ministers initiated an international study on the economics of ecosystems and biodiversity (TEEB), which is supposed to present the economic costs of the global loss of biodiversity.[142] Meanwhile, several TEEB reports have been presented, providing strong evidence of major economic losses and a serious adverse impact on human welfare due to the ongoing loss of biodiversity and degrading of ecosystems.[143]

4.2 Relevant Biodiversity-Related Instruments

Since 1990, the following important international biodiversity-related instruments have been agreed upon:

- 1991 Protocol on Environmental Protection to the Antarctic Treaty;[144]
- 1991 Convention on the Protection of the Alps;[145]
- 1992 United Nations Framework Convention on Climate Change;[146]
- 1992 EEC Habitats Directive;[147]

— 1992 Convention on Biological Diversity;[148]
— 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic;[149]
— 1994 Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora;[150]
— 1994 United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa;[151]
— 2000 European Landscape Convention;[152]
— 2001 International Treaty on Plant Genetic Resources for Food and Agriculture;[153]
— 2003 African Convention on the Conservation of Nature and Natural Resources.[154]

In 1959, the Antarctic Treaty was signed in Washington, USA.[155] The objective of this treaty is to preserve Antarctica for peaceful purposes and to avoid it to become the scene or object of international discord.[156] Several states have made territorial claims and the treaty should ensure that these states hold their claims in abeyance. The treaty does not contain any provisions concerning the protection of the environment, but it has led to associated separate instruments that do, such as the 1972 Convention for the Conservation of Antarctic Seals,[157] the 1980 Convention on the Conservation of Antarctic Marine Living Resources,[158] the 1991 Madrid Protocol for the Protection of the Antarctic Environment, and many recommendations adopted at the consultative meetings of the treaty. Collectively, they form the Antarctic Treaty System. The 1991 Protocol on Environmental Protection to the Antarctic Treaty (**Antarctic Protocol**) was developed to strengthen the protection of the continent's living resources and has as its objective to comprehensively protect the Antarctic environment and dependent and associated ecosystems.[159] The protocol designates Antarctica as a 'natural reserve, devoted to peace and science'.[160] One of the annexes to the protocol deals exclusively with the conservation of Antarctic fauna and flora,[161] another annex focuses on the protection of Antarctic habitats.[162] Also of interest are the provisions on compliance[163] and on inspection of the area by observers to ensure compliance.[164] The protocol has entered into force in 1998 after its ratification by all states that are consultative parties. Parties can only become consultative parties if they are conducting substantial scientific research in the area. Consultative parties are entitled to send representatives to participate in and vote on issues at Antarctic Treaty Consultative Meetings. There are currently 28 consultative parties.[165] A special Committee for Environmental Protection has been established under the protocol reporting to the Antarctic Treaty Consultative Meeting,[166] which is the regular meeting of the contracting parties to the Antarctic Treaty. The main functions of the committee are to provide advice and make recommendations to the parties.[167]

Eight states whose territories are (partially) situated in the Alps signed the Convention on the Protection of the Alps in 1991 (**Alpine Convention**). Air pollution, tourism, and trans-Alpine traffic have a deteriorating effect on the environment and biodiversity of the Alps, and in recognition of the fragility and importance of this region as a whole, an international effort to address these problems was considered necessary. The objective of the convention is to guarantee the protection and sustainable development of the Alpine region.[168] The Alpine Convention is a framework convention stipulating broad measures that parties have to take with regard to air quality, soil preservation, water quality, nature protection and scenery preservation.[169] Further obligations such as carrying out cooperative efforts in research and scientific study,[170] undertaking systematic monitoring activities,[171] and

collaborating in legal, scientific, economic and technical domains[172] have also been laid down in the convention. More detailed obligations can be found in the nine protocols that have been agreed upon by the parties at later dates. One of the protocols concerns the conservation of nature and the countryside. The Alpine Convention provides for a Conference of the Contracting Parties (the Alpine Conference), which is the decision making body[173] and a Permanent Committee (the Standing Committee), operating as the executive organ.[174] The establishment of a permanent Secretariat is also provided for in the convention.[175] This was set up in Innsbruck, Austria, in 2003.

The immediate cause for the adoption of the United Nations Framework Convention on Climate Change (**UNFCCC**) was the discovery that climate change is occurring as a result of man-made emissions of greenhouse gases. During the 1960s and '70s, the first evidence emerged that this was taking place, and in 1988 the Intergovernmental Panel on Climate Change (IPCC) was created by the World Meteorological Organisation and UNEP. Hundreds of scientists have since been active for the IPCC, and its influential assessment reports have laid the foundation for the UNFCCC. Meanwhile, the convention has been ratified by 192 states.[176] Its objective is 'to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner'.[177] The principal body of the convention is the Conference of the Parties.[178] A Secretariat has been established[179] as well as a Subsidiary Body for Scientific and Technological Advice.[180] In 1997, the Kyoto Protocol to the Convention on Climate Change was adopted in Kyoto, Japan.[181] This protocol, which has now been ratified by 189 states and the EEC,[182] has strengthened the convention significantly by setting out legally-binding targets for the parties that are industrialised states. These have to limit or reduce their emission of greenhouse gases from 1990 levels by an average of 5% over the period 2008-2012. The issue of climate change as well as the Kyoto Protocol are still the subject of weighty debate amongst many stakeholders as to whether and how future targets should be set and for which parties.[183]

The introduction of the Wild Birds Directive was the first step at EU level to stop the deterioration of biodiversity within its territory. Further measures appeared to be necessary to conserve threatened habitats and species. This resulted in the adoption in 1992 of the EEC Habitats Directive (**Habitats Directive**). The objectives of the Habitats Directive are 'to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States',[184] and 'to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest'.[185] To achieve this goal, a long list of measures has been laid down in the directive, of which the most prominent is the designation by the member states of Special Areas of Conservation (SACs).[186] Specific measures for the protection of species are also included in the directive.[187] Habitats and species that need protection are listed in annexes to the directive. In all, these annexes contain around 200 types of habitats and over 1,000 animal and plant species.[188] The Special Protection Areas (SPAs) designated under the Wild Birds Directive and the SACs jointly form the so-called Natura 2000 network, which is the cornerstone of the EU nature conservation policy. A special committee, the Habitats Committee, has been established to assist the European Commission with the adoption of measures concerning the implementation of the directive.[189] The implementation of the

Habitats Directive and the Natura 2000 network by the 15 initial member states is now well advanced. The 12 new member states are still in an earlier phase.[190]

The call for an all-embracing international agreement to address the loss of biodiversity has led to the 1992 Convention on Biological Diversity (**CBD**). The CBD differs from other biodiversity-related conventions by adopting a holistic approach to the conservation of the earth's biological diversity by covering all ecosystems, species and genetic resources. Its distinctive approach is also reflected in its objectives, which are not limited to the conservation of biodiversity, but include the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources as well.[191] The convention can be described as a framework convention.[192]

The CBD has 193 parties.[193] Only a few states have not ratified the convention, of which the USA is the most prominent. It played an important role in the initiation of the convention, but could not agree with the final wording of the text. The convention provides for three bodies: the Conference of the Parties, the Secretariat, and the Subsidiary Body on Scientific, Technical and Technological Advice.[194] Other relevant bodies are the Bureau, which provides guidance to the Secretariat, as well as several working groups. This convention will be assessed in detail in Chapter VIII of this study.

In 1992, the Convention for the Protection of the Marine Environment of the North-East Atlantic (**OSPAR Convention**) opened for signature.[195] It entered into force in 1998 and has been signed and ratified by sixteen (European) parties. The aim of the convention is to cooperate to protect the marine environment of the North-East Atlantic. Its decision-making body, which is the OSPAR Commission, is supported by six main Committees dealing with environmental assessment and monitoring, eutrophication, radioactive substances, hazardous substances, offshore industry, and biodiversity respectively. A Secretariat has also been established. The convention contains a number of annexes. Annex V, which was adopted at a later stage, focuses on the protection and conservation of ecosystems and biodiversity of the North-East Atlantic. One of the measures laid down in the annex is the designation of marine protected areas, of which several have now been established.[196]

The 1994 Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (**Lusaka Agreement**) came into being on the initiative of wildlife enforcement officers from eight African countries concerned about the high incidence of illegal wildlife trafficking. The agreement has currently six parties: the Republic of Congo, Kenya, Uganda, Zambia, United Republic of Tanzania and the Kingdom of Lesotho. The Republic of South Africa, Ethiopia and the Kingdom of Swaziland are signatories.[197] The objective of the Lusaka Agreement is 'to reduce and ultimately eliminate illegal trade in wild fauna and flora and to establish a permanent Task Force for this purpose'.[198] The permanent Task Force was established in March 1997 and is operational since 1 June 1999. It co-operates and coordinates with the National Bureaus of the state parties on investigations into illegal trade of wildlife.[199] So far, it has been involved in some major seizures, often concerning pieces of elephant tusks.[200] The Governing Council is the decision making body of the agreement.[201] The agreement is of direct importance in relation to the enforcement of CITES in the African states that are party to both.

In 1994 the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (**UNCCD**) was signed.[202] The convention aims to redress the problem of land degradation, especially in Africa. This problem occurs in dry ecosystems, which cover over one-third of the world's

land area, and is caused by over-exploitation and inappropriate land use such as overgrazing and bad irrigation practices. The convention has currently 193 parties,[203] of which the parties that are developed countries have committed themselves to provide financial resources and other forms of assistance.[204] The parties affected by desertification are expected to develop and carry out action programmes.[205] The criteria for the preparation of these programmes are laid down in five 'regional implementation annexes'[206] relating to Africa, Asia, Latin America and the Caribbean, the Northern Mediterranean, and Central and Eastern Europe, respectively. The main bodies of the convention are the Conference of the Parties, the Secretariat and the Committee on Science and Technology.[207]

The 2000 European Landscape Convention (**Landscape Convention**) is the first treaty that deals exclusively with the protection, management and planning of landscapes. It operates under the auspices of the Council of Europe. Under the convention, 'landscape' is defined as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'.[208] The European Landscape Convention covers the entire territory of each state party and all sectors that may have an impact on the landscape.[209] It recognises the public's desire 'to enjoy high quality landscapes and to play an active part in the development of landscapes'.[210] The objective of the convention is 'to promote landscape protection, management and planning, and to organise European co-operation on landscape issues'.[211] The measures that parties should undertake include the establishment of landscape policies as well as procedures that will enable the general public to participate in the definition and implementation of landscape policies.[212] Landscape should be integrated in all other relevant policies which might have a possible impact on it.[213] It is recognised that other international instruments may also cover the protection of certain landscapes and it is explicitly acknowledged that the convention 'shall not prejudice future binding national or international instruments'.[214] The convention is supervised by two Council of Europe intergovernmental committees, which are reporting to the Committee of Ministers.[215] Today, out of the 47 member states of the Council of Europe, 30 have ratified the convention.[216]

The FAO Conference adopted the International Treaty on Plant Genetic Resources for Food and Agriculture (**ITPGRFA**) in 2001. It entered into force in 2004 and has 123 parties.[217] The objectives of the treaty are: 'the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity for sustainable agriculture and food security'.[218] The treaty covers all plant genetic resources for food and agriculture. It establishes a system of access and benefit-sharing for plant genetic resources based on an agreed list of crops.[219] It has a Governing Body, which is the decision-making organ,[220] as well as a Secretariat.[221]

The 2003 African Convention on the Conservation of Nature and Natural Resources (**African Nature and Natural Resources Convention**) is the modernised successor of the 1968 African Nature Convention. The objectives of the convention are threefold: (1) to enhance environmental protection, (2) to foster the conservation and sustainable use of natural resources, and (3) to harmonise and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable development policies and programmes.[222] A wide range of issues are covered, including the maintenance and enhancement of species and their genetic diversity,[223] the protection of species,[224] the trade in specimens,[225] and the protection of conservation areas.[226] The convention provides for an institutional framework with a Conference of the Parties as decision-making body[227]

and a Secretariat to perform a long list of administrative tasks.[228] It operates under the auspices of the African Union, which has 53 member states. To date, 37 member states have signed the convention and eight have ratified it. This means that the convention has not yet entered into force since at least fifteen states need to ratify it.[229]

Although not biodiversity-related, the 1998 UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (**Aarhus Convention**) also needs mentioning since it is an important convention in relation to this study.[230] UNECE is the United Nations Economic Commission for Europe and has 56 member states, which are geographically situated in the Northern hemisphere.[231] The Aarhus Convention lays down a number of rights for the public aimed at increasing its involvement in environmental matters and improving the implementation and enforcement of environmental law. The rights that the convention establishes for the public cover three areas. Firstly, it grants the public the right to receive environmental information held by public authorities. Secondly, it gives the public the right to participate from an early stage in environmental decision-making, and thirdly, it allows the public to seek redress in a court of law in case the first two rights are not respected or when environmental law is infringed. The convention entered into force in October 2001 and 44 parties have ratified it so far.[232] The Meeting of the Parties is the decision-making body and its Secretariat is provided by UNECE.[233]

5. Conclusion

The unprecedented economic development of the twentieth century did not come without grave problems. It has led to a general degradation of the environment including a serious decline of biodiversity. In an attempt to counter these effects, various international organisations authorised to deal with environmental matters were created and numerous biodiversity-related conventions, directives and programmes have been put in place.

This chapter takes a look at three distinct periods. Between 1940-1970, a growing awareness developed that the environment needs protection from ongoing economic activity and that natural resources are not unlimited. The biodiversity-related conventions dating from this period were frequently primarily motivated by economic interests and often suffered from major shortcomings, such as the lack of an institutional framework. Of the various conventions from that period that were discussed in sub-section 2.2, only the International Whaling Convention and the International Plant Protection Convention are still active today.

It is obvious that the period of the 1970s and '80s has been very important in relation to the development of international environmental law and policies, including the legal protection of biodiversity. The establishment of UNEP as the international organisation fully dedicated to the protection of the environment created a step change. During this period many important legal instruments were signed, including four of the five major global treaties that will be assessed in this study. The texts of the instruments drafted in this period reflect a more sophisticated structure and generally provide for an institutional framework.

The period from the 1990's can be characterised by an increasing realisation that development can only be sustainable if environmental concerns are integrated into economic decision-making. The main event in relation to the development of the international legal protection of biodiversity was without doubt the signing by the vast

majority of states of the CBD, which is now the most comprehensive piece of international biodiversity-related legislation.

In conclusion of this chapter some observations can be made. Firstly, it is remarkable that the majority of the international biodiversity-related treaties discussed in this chapter are still very much alive today. This encouraging outcome did, however, not fell to most regional biodiversity-related conventions of a general nature, such as the Western Hemisphere Convention (the Americas), the African Nature Conventions (Africa), the Apia Convention (South Pacific) and the ASEAN Agreement (South East Asia), which are largely sleeping treaties. The European region seems to provide some positive exceptions in the form of the Bern Convention (Council of Europe) and the Wild Birds and Habitats Directives as well as the CITES Regulations (EU), all very active instruments.

A second observation is that the number of biodiversity-related instruments has grown dramatically in the past decades. As a consequence, the financial, technical and human resources needed to manage this multitude of instruments has increased considerably, creating a heavy burden, especially for states that are limited in funds and capabilities.

A third observation could be that the majority of biodiversity-related treaties are focused on terrestrial and inland water living resources, while the marine living resources have so far received less attention.

[1] See Chapter I for more details.
[2] See sub-section 4.2 for more information.
[3] See www.nps.gov/yell/index.htm.
[4] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 27.
[5] London, 19 May 1900; IV *I.P.E.* 1607.
[6] Paris, 19 March 1902, in force 20 April 1908; IV *I.P.E.* 1615.
[7] Bern, 19 November 1913; IV *I.P.E.* 1631.
[8] The International Ornithological Committee.
[9] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 29.
[10] See www.un.org (accessed 5 February 2010).
[11] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 32.
[12] See www.unesco.org (accessed 5 February 2010).
[13] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 31 and Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 102.
[14] See www.iucn.org/members (accessed 5 February 2010).
[15] Washington, 12 October 1940, in force 1 May 1942; 161 UNTS 193.
[16] Washington, 2 December 1946, in force 10 November 1948; 338 UNTS 336.
[17] Which superseded the 1902 Convention on the Protection of Birds; Paris, 18 October 1950, in force 17 January 1963; 638 UNTS 185.
[18] Rome, 6 December 1951, in force 3 April 1952; 150 UNTS 67.
[19] Geneva, 29 April 1958, in force 20 March 1966; 559 UNTS 285.
[20] Algiers, 15 September 1968, in force 9 October 1969; 1001 UNTS 4.
[21] See www.oas.org/juridico/english.
[22] Western Hemisphere Convention, Preamble.
[23] Western Hemisphere Convention, Article II (1).
[24] Western Hemisphere Convention, Article III.
[25] Western Hemisphere Convention, Article IV.
[26] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 528 and Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997) 138.
[27] International Whaling Convention, Preamble.
[28] For instance whaling for 'research'.
[29] See www.iwcoffice.org (accessed 17 February 2010).
[30] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 601 and Bowman M., 'International Treaties and the Global Protection of Birds: Part I' (1999) 11 *Journal of Environmental Law* 1, 91.
[31] See Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 709.
[32] See www.ippc.int (accessed 17 February 2010).
[33] African Nature Convention, Article II.
[34] African Nature Convention, Articles VI, VII, VIII.
[35] African Nature Convention, ArticleIX.
[36] African Nature Convention, Article X.
[37] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 525.
[38] See sub-section 4.2 of this chapter.
[39] See www.unep.org.
[40] Ibid.
[41] UN General Assembly Resolution 37/7 and Annex: World Charter For Nature of 28 October 1982.
[42] See Part I of the charter: General Principles of the World Charter for Nature.
[43] See Part III of the charter: Implementation, paragraph 23.
[44] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 47.
[45] WECD, *Our Common Future* (Oxford, 1987).
[46] 1986 WCED Legal Principles.
[47] UNGA Resolution 42/186.
[48] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 50.
[49] www.unesco.org/mab.

[50] Ramsar, 2 February 1971, in force 21 December 1975; 996 UNTS 245.
[51] Paris, 16 November 1972, in force 17 December 1975; 27 UST 37, 11 ILM (1972), 1358.
[52] Washington, 3 March 1973, in force 1 July 1975; 993 UNTS 243.
[53] Oslo, 15 November 1973, in force 26 May 1976; 13 ILM (1974), 13.
[54] Apia, 12 June 1976, in force 28 June 1990; IELMT 976:45.
[55] Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, based on Article 308 (ex Article 235) of the EC Treaty.
[56] Bonn, 23 June 1979, in force 1 November 1983; 19 ILM (1980), 15.
[57] Bern, 19 September 1979, in force 1 June 1982; UKTS 56 (1982), Cmnd. 8738.
[58] Lima, 20 December 1979, in force 19 March 1982; IELMT 979:94.
[59] Montego Bay, 10 December 1982, in force 16 November 1994; 21 ILM (1982), 1261.
[60] Council Regulation (EEC) No. 3626/82 (4) of 3 December 1982 on the implementation in the Community of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.
[61] Geneva, 18 November 1983, in force 1 April 1985; UN doc. TD/TIMBER/11/Rev. 1 (1984).
[62] Kuala Lumpur, 9 July 1985, not in force; 15 EPL 64 (1985).
[63] See www.unesco.org/mab.
[64] Ibid. (accessed 17 February 2010).
[65] Statutory Framework of the World Network of Biosphere Reserves: Introduction.
[66] Ibid., Article 3.
[67] Ramsar Convention, Preamble.
[68] Ramsar Convention, Article 2, paragraph 1, see also Article 2, paragraph 5.
[69] Ramsar Convention, Article 3, paragraph 1 and Article 4, paragraph 1.
[70] Ramsar Convention, Article 4, paragraph 4.
[71] See www.ramsar.org (accessed 31 December 2010).
[72] Chapter V.
[73] World Heritage Convention, Preamble.
[74] World Heritage Convention, Article 5.
[75] See whc.unesco.org (accessed 31 December 2009).
[76] Ibid.
[77] See www.cites.org.
[78] See www.cites.org (accessed 31 December 2009).
[79] Chapter VI.
[80] Polar Bear Agreement, Article II.
[81] Polar Bear Agreement, Article I.
[82] Polar Bear Agreement, ArticleIII.
[83] See for more information www.polarbearsalive.org/facts2.php.
[84] Apia Convention, Preamble.
[85] Apia Convention, Article II.
[86] Apia Convention, Article III.
[87] Apia Convention, Article IV.
[88] Apia Convention, Article V.
[89] See www.sprep.org.
[90] Denmark, Ireland and the United Kingdom joined the EEC in 1973.
[91] Wild Birds Directive, Article 1, paragraph 1.
[92] See for more information ec.europa.eu/dgs/environment/index_en.htm (accessed 18 February 2010).
[93] Chapter VII.
[94] See www.unep.org.
[95] CMS, Article II, paragraph 1.
[96] CMS, Article II, paragraph 2.
[97] See www.cms.int (accessed 31 December 2009).
[98] Bern Convention, Preamble, third recital.
[99] See www.coe.int.
[100] Bern Convention, Chapter I, Article 1, paragraph 1.
[101] Bern Convention, Chapter I, Article 1, paragraph 2.
[102] Bern Convention, Chapter II.
[103] Bern Convention, Chapters III and IV.

[104] Belarus, Burkina Faso, the European Community, Morocco, Senegal and Tunisia.
[105] See for more information www.coe.int.
[106] Vicuñas are wild camelids that inhabit high regions of the Andes. They live in family groups consisting of a territorial male, females and their young.
[107] See Lichtenstein G., 'Vicuña conservation and poverty alleviation? Andean communities and international fibre markets' (2010) 4:1 *International Journal of the Commons* 100.
[108] Vicuña Convention, Preamble.
[109] UNCLOS is available on www.un.org/Depts/los/index.htm.
[110] UNCLOS, Section 2.
[111] UNCLOS, Section 3.
[112] UNCLOS, Part V.
[113] UNCLOS, Part VII.
[114] UNCLOS, Part XII.
[115] UNCLOS, Article 192.
[116] See http://untreaty.un.org/cod/avl/ha/uncls/uncls.html (accessed 16 February 2010).
[117] Ibid.
[118] This definition is used in Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 616.
[119] New York, 4 August 1995, Treaty Series, vol. 2167, page 3.
[120] UNCLOS, Articles 63 and 64.
[121] Council Regulation (EEC) No. 3626/82 (4) of 3 December 1982 on the implementation in the Community of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.
[122] Council Regulation 338/97, Article 16.
[123] Council Regulation 338/97, Articles 17 and 18.
[124] See www.itto.or.jp.
[125] ITTA, Article 3.
[126] ITTA, Article 6.
[127] See ec.europa.eu.
[128] Cambodia, Laos, Myanmar and Vietnam have joined ASEAN at a later stage.
[129] ASEAN Conservation Agreement, Article 1.
[130] Brunei Darussalam, Malaysia, Singapore.
[131] See www.aseansec.org/2820.htm.
[132] Not surprisingly, there was huge media interest. The cover of the issue of *Time Magazine* at the time read: 'Coming Together to Save the Earth'.
[133] The Rio Declaration is available on www.unep.org.
[134] Agenda 21 is available on www.unep.org.
[135] The Forest Principles are available on www.un.org.
[136] See Sands P., *Principles of international environmental law* (Cambridge, 2003) 1032.
[137] See for more information www.earthsummit2002.org and www.worldsummit2002.org.
[138] See www.millenniumassessment.org.
[139] Ibid.
[140] See http://ipbes.net.
[141] Early 2010.
[142] See TEEB website for more information: www.teebweb.org.
[143] Ibid.
[144] Madrid, 4 October 1991, in force 1998; 30 ILM (1991), 1461.
[145] Salzburg, 7 November 1991, in force 6 March 1995; 31 ILM (1992), 767.
[146] New York, 9 May 1992, in force 21 March 1994; www.unfccc.int.
[147] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
[148] Rio de Janeiro, 5 June 1992, in force 29 December 1993; 31 ILM (1992) 822.
[149] Paris, 22 September 1992, in force 25 March 1998; 32 ILM (1993) 1072.
[150] Lusaka, 8 September 1994, in force 10 December 1996; www.unep.org.
[151] Paris, 14 October 1994, in force 26 December 1996; 33 ILM (1994), 1016.
[152] Florence, 20 October 2000, in force 1 March 2004; www.nature.coe.int/T/E/Cultural_Co-operation/Environment.

153 Rome, 3 November 2001, in force 29 June 2004; www.planttreaty.org.
154 Maputo, 11 July 2003, not yet in force; www.africa-union.org.
155 Washington, 1 December 1959, in force 23 June 1961; 402 UNTS 771.
156 See Antarctic Treaty, Preamble.
157 In force 11 March 1978, 11 ILM (1972), 251. 417.
158 In force 7 April 1982, 19 ILM (1980), 841.
159 Antarctic Protocol, Article 2.
160 Ibid.
161 Antarctic Protocol, Annex II.
162 Antarctic Protocol, Annex V.
163 Antarctic Protocol, Article 13.
164 Antarctic Protocol, Article 14.
165 See www.antarctica.ac.uk (accessed 20 February 2010).
166 Antarctic Protocol, Article 11.
167 Antarctic Protocol, Article 12; see for more information on the Antarctic Treaty System: www.ats.aq/index_e.htm and www.antarctica.ac.uk.
168 See www.alpconv.org.
169 Alpine Convention, Article 2.
170 Alpine Convention, Article 3 (a).
171 Alpine Convention, Article 3 (b).
172 Alpine Convention, Article 4.
173 Alpine Convention, Article 5.
174 Alpine Convention, Article 8.
175 Alpine Convention, Article 9.
176 See www.unfccc.int (accessed 20 February 2010).
177 UNFCCC, Article 2.
178 UNFCCC, Article 7.
179 UNFCCC, Article 8.
180 UNFCCC, Article 9.
181 Kyoto, 11 December 1997, in force 16 February 2005.
182 See www.unfccc.int (accessed 20 February 2010).
183 See for more information www.unfccc.int.
184 Habitats Directive, Article 2, paragraph 1.
185 Habitats Directive, Article 2, paragraph 2.
186 Habitats Directive, Article 3 to Article 11.
187 Habitats Directive, Article 12 to Article 16.
188 See http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm (accessed 22 February 2010).
189 Habitats Directive, Articles 20 and 21.
190 The supervision of Natura 2000 was discussed in sub-section 3.2 of this chapter under Wild Birds Directive.
191 CBD, Article 1.
192 See sub-section 3.2, under UNCLOS, for a definition of framework convention.
193 See www.cbd.int (accessed 31 December 2009).
194 CBD, Articles 23, 24 and 25 respectively.
195 See www.ospar.org (accessed 23 November 2010).
196 Ibid.
197 See www.lusakaagreement.org (accessed 22 February 2010).
198 Lusaka Agreement, Article 2.
199 Lusaka Agreement, Article 6.
200 See www.lusakaagreement.org.
201 Lusaka Agreement, Article 7.
202 Paris, 14 October 1994, in force 26 December 1996.
203 See www.unccd.int (accessed 22 February 2010).
204 UNCCD, Article 6.
205 UNCCD, Articles 5, 9, 10 and 11.

206 UNCCD, Article 15.
207 See for more information www.unccd.int.
208 Landscape Convention, Article 1 (a).
209 Landscape Convention, Preamble, 6th recital.
210 Landscape Convention, Preamble, 7th recital.
211 Landscape Convention, Article 3.
212 Landscape Convention, Article 5 (b) and (c).
213 Landscape Convention, Article 5 (d).
214 Landscape Convention, Article 12; Preamble, 9th recital refers to a list of relevant instruments.
215 Landscape Convention, Article 10.
216 See www.coe.int/t/dg4/cultureheritage/heritage/Landscape/default_en.asp (accessed 22 February 2010).
217 See www.fao.org/Legal/TREATIES/033s-e.htm (accessed 22 February 2010).
218 ITPGRFA, Article 1, paragraph 1.
219 See www.planttreaty.org.
220 ITPGRFA, Article 19.
221 ITPGRFA, Article 20.
222 African Nature and Natural Resources Convention, Article II.
223 African Nature and Natural Resources Convention, Article IX.
224 African Nature and Natural Resources Convention, Article X.
225 African Nature and Natural Resources Convention, Article XI.
226 African Nature and Natural Resources Convention, ArticleXII.
227 African Nature and Natural Resources Convention, Article XXVI.
228 African Nature and Natural Resources Convention, Article XXVII.
229 See www.africa-union.org (accessed 22 February 2010).
230 Aarhus, 25 June 1998, in force 29 October 2001; 38 ILM (1999) 517.
231 USA and Canada are also member states.
232 See www.unece.org/env/pp (accessed 22 February 2010).
233 See also Chapter III, sub-section 5.8.

CHAPTER III: THE EFFECTIVENESS TEST

1. Introduction

Of all the international biodiversity-related instruments that were discussed in Chapter II, the five conventions assessed in this study, the Ramsar Convention, the World Heritage Convention, CITES, the CMS and the CBD, are supposed to play the principal role in addressing the substantial worldwide loss of biodiversity.

These conventions have been in place for relatively long periods of time, ranging from about eighteen years (the CBD) to over thirty (the CMS) and even over thirty-five years (the Ramsar Convention, the World Heritage Convention and CITES), and could reasonably be expected to have yielded some noticeable results. Unfortunately, scientific evidence shows that the loss of biodiversity is continuing unabatedly. Commentators regularly warn against nourishing too high hopes of the impact of international agreements. Bowman, for instance, states that 'experience suggests that it would be unrealistic to expect that international agreements in the conservation field will ever be capable of achieving spectacular results in the sense of a wholesale reversal or elimination of contemporary trends of environmental degradation and species extinction; such impact as they produce, is likely to be of a much more modest, 'damage limitation' character'.[1] In his book on the global environment Speth writes: 'It would be comforting to think that all the international negotiations, summit and conference agreements, conventions and protocols have at least got us to the point where we are now prepared to act decisively - comforting but wrong. The problems have gone from bad to worse; we are not yet prepared to deal with them; and many countries around the world lack the leadership to get prepared'.[2] At the same time research in Europe indicates that the general public believes that international environmental legislation is essential for solving the global environmental problems.[3]

As of the 1990s, twenty years after the Stockholm Conference and the signing of a series of important international environmental agreements, the academic world started to show an increasing interest in questions such as whether or not the international environmental agreements could be considered to be effective and how the effectiveness should be measured, leading to various studies on these subjects. This research and debate is still continuing today and the aim of this study is to make a valuable contribution to their development.

In line with what has been stipulated above, it is clear that in order to be able to assess the effectiveness of the five biodiversity-related conventions, two important questions need to be dealt with first: How should effectiveness be defined? and how can it be measured? Before these questions will be addressed, some influential studies on the concept of effectiveness in relation to international environmental agreements over the past twenty years will be briefly discussed in section 2 of this chapter.

The different approaches in relation to the meaning of effectiveness will then be discussed in section 3, followed by the presentation of the definition of effectiveness that will be used in this study.

In the two subsequent sections the Effectiveness Test to assess the five conventions will be introduced and expounded. Section 4 will illustrate the application of the Effectiveness Test and discuss the selection of the ten elements and benchmarks that will be used for the

test. Section 5 will discuss and explain the ten elements of the Effectiveness Test in more detail.

In the following chapters the five main conventions in relation to the protection of biodiversity are examined on the basis of the Effectiveness Test.

2. Some Influential Studies on the Concept of Effectiveness

Many international environmental agreements were concluded in the 1970s and 80s, and it is therefore not surprising that around the time of the important United Nations Conference on Environment and Development (UNCED) took place in Rio de Janeiro in 1992, the interest of the academic world into the effectiveness of these treaties gradually increased. This resulted in several significant studies that not only provide valuable insight into the subject, but also demonstrate that although there are various alternative routes to examine the effectiveness of international environmental agreements, they are never free of obstacles.

One of the first studies on this subject was carried out in 1992 under the responsibility of UNCED and edited by Sand as principal programme officer of the project.[4] This study was the outcome of 'an intensive debate on the adequacy and effectiveness of existing legal mechanisms' that preceded the UNCED meeting in Rio de Janeiro.[5] Many experts contributed to this project, which resulted in the publication of *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments*.[6] A long list of criteria was developed and used to evaluate 124 multilateral environmental instruments, including the Ramsar Convention, The World Heritage Convention, CITES and the CMS. No clear conclusions on the effectiveness of these instruments could be drawn, however, as the term effectiveness had not been defined, nor had in-depth assessments been undertaken.

At the end of the 1990s, various new studies on the subject appeared, of which those of Brown Weiss and Jacobson (Eds.) in 1998, Victor, Raustiala and Skolnikoff (Eds.) also in 1998, and Wettestad and Young (Ed.), both in 1999, certainly need mentioning. Each of these will be briefly discussed below.

Engaging Countries: Strengthening Compliance with International Environmental Accords edited by Brown Weiss and Jacobson focuses mainly on the compliance of countries with their obligations under environmental agreements (accords).[7] It states that compliance can be measured, but that precise measurement is elusive.[8] Furthermore, the authors admit that 'effectiveness is crucially important', but that 'until implementation and compliance are better understood, the contribution of treaties to solving international environmental problems cannot be known'.[9] Various factors are applied to 'measure' compliance, most of which are also used in this study.[10] Five treaties were chosen for assessment, including the World Heritage Convention and CITES, and these assessments were carried out in relation to eight countries and the EU. The 'concluding observations' for each agreement are rather non-specific and do not reveal whether or not the instrument is considered to be effective.

The book edited by Victor, Raustiala and Skolnikoff, *The Implementation and Effectiveness of International Environmental Commitments*, is the result of a three-year research project in which different disciplines (legal, international relations, political science) participated.[11] The focus in this study is on the implementation of international environmental commitments on the international and on the national level, while the ultimate concern is their effectiveness. The definition that is used for effectiveness is 'the degree to which international environmental accords lead to changes in behaviour that help solve

environmental problems'.[12] A long list of international environmental agreements is assessed in the book (but none of the conventions assessed in this study), and although it does not attempt to establish the level of effectiveness of these instruments, it presents many interesting findings, which are relevant to this study as well, such as the importance of accurate data for the review of the implementation of a convention on the international level,[13] and the benefits of non-binding commitments.[14]

A different approach was taken by Wettestad in his book *Designing Effective Environmental Regimes: The Key Conditions*.[15] The term regime is used instead of convention, treaty, agreement or accord and is defined by Wettestad as 'international institutions consisting of agreed-upon principles, norms, rules, procedures and programmes that govern the interactions of actors in specific areas'.[16] In relation to the concept of effectiveness, he uses the approach taken by Underdal, who proposes two dimensions of regime effectiveness, 'distance to collective optimum' (the extent to which a collective problem is 'solved' under present arrangements) and 'relative improvement' (whether and to what extent 'regimes matter').[17] Six factors are used to assess different regimes, namely the access and participation procedures, the decision-making rules, the role of the secretariat, the structuring of the agenda, the organisation of the science-politics interface and the verification and compliance mechanisms. For each of these factors assumptions are defined.[18] The conclusions in the book in relation to the effectiveness of the three different regimes that are assessed are generally not as clear-cut as the outcome that 'regimes clearly matter'.[19]

Also in 1999, *The Effectiveness of International Environmental Regimes* edited by Young was published.[20] This book resulted from a research project that started in 1991 and involved many experts from five countries. The focus of this study is the investigation of the sources of behaviour that specify the conditions under which regimes are likely to prove effective.[21] A set of behavioural models is introduced and applied in several case studies 'to assess the relevance and relative importance of the behavioural mechanisms associated with each of the models under real-world conditions'.[22] The case studies involve four regimes covering three problem areas; oil pollution, Barents Sea Fisheries and transboundary air pollution. The book's final conclusions are that regimes do matter, and that there is a considerable variety in the effectiveness of international regimes.[23] In relation to the behavioural models that were chosen it is concluded that 'the roles different mechanisms play [also] vary across regime types' and that it is 'difficult to assign weights to the significance of various mechanisms on an individual basis'.[24] Chambers has criticised this model of effectiveness, stating that it does 'not provide concrete means for policy-makers to negotiate and produce more effective treaties'.[25]

The final and most recent study to be briefly discussed here is that of Miles et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence*.[26] Various experts contributed to this book, including Underdal and Wettestad. The objective of the systematic empirical study is to 'help improve our understanding of why some international problem-solving efforts are more successful than others'.[27] An impressive causal model is developed to evaluate the effectiveness of regimes. Effectiveness is seen as 'the dependent variable' and measured in terms of output (the regime's rules and regulations), outcome (behavioural change) and impact (biophysical changes).[28] A regime is considered to be effective 'to the extent that it successfully performs some generic function or solves the problem that motivated its establishment'.[29] Two basic points of reference are used for the assessment of the effectiveness of regimes: (1) the hypothetical situation that would have

existed in its absence (the non-cooperative situation), and (2) the notion of what would be the ideal solution (the collective optimum).[30] Subsequently, regime effectiveness is seen as a function of two main independent variables: (1) the character of the problem (benign or malign) and (2) the problem-solving capacity (three determinants are named).[31] For each of these independent variables hypotheses are introduced. Fourteen regimes are assessed in the study based on this methodology. The regimes are divided in effective regimes, mixed performance regimes and regimes of low effectiveness.[32] The main conclusions of the study can be summarised as follows: (1) regimes do succeed in changing actor behaviour in the direction intended (but none of the regimes has reached the optimal solution), (2) even strongly malign problems can be solved effectively, and (3) most regimes become more effective as they develop.[33]

These studies show that different methodological approaches are possible to study the effectiveness of international environmental agreements. As Underdal suggests 'different methodological approaches to a large extent serve different purposes'.[34] At the same time, it has also been argued that despite 'the numerous studies that have dealt with the topic, there remains a poor understanding of effectiveness in international law'.[35] Young has for instance stated that 'experts can and often do differ dramatically in their judgments about the effects of specific regimes, even when they come from the same discipline'.[36] Be that as it may, many of the factors, criteria or determinants that have been used to 'measure' effectiveness (or compliance) are also relevant to this study as will be further explained in section 4 of this chapter. But first it is important to have a closer look at the different definitions of effectiveness that have been employed in the various studies and to determine which definition to use in this study.

3. Finding a Definition for Effectiveness

The five biodiversity-related conventions that will be assessed in this study are considered to be the key instruments to tackle the problem of biodiversity loss because their scope is global and they are focused on the main causes of this decline.[37] The objectives of the CBD are the most comprehensive and include the conservation of all biodiversity.[38] Because of the great significance ascribed to these conventions their effectiveness is of paramount importance. But what exactly does effectiveness mean in this context?

Effectiveness is not defined in the first two studies discussed in the previous section. [39] These studies do, however, introduce several criteria or factors considered to be important to the effectiveness of the conventions they subsequently assess, such as those in relation to 'objectives', 'implementation' and 'compliance'. Notwithstanding the fact that these studies yield very valuable data, they demonstrate the difficulty to arrive at clear conclusions regarding the effectiveness of the different international environmental instruments without a proper definition of the term effectiveness.

In his book *International Governance*, Young is probably one of the first academics to give serious consideration to the meaning of effectiveness in relation to international environmental instruments.[40] He claims that the meaning of effectiveness very much depends on the approach chosen. The focus can for instance be on problem-solving, on meeting contractual obligations or on changing behaviour of participants. In his 1999 book *The Effectiveness of International Environmental Regimes*, which was discussed in the previous section, he refers to effectiveness as an 'elusive concept' that 'can mean a number of things'.[41] The definition chosen for this book's case studies concentrates on the

demonstration of 'the behavioural impacts of regimes and through such impacts the contributions of institutional arrangements to problem solving at the international level'.[42]

In their book *The Implementation and Effectiveness of International Environmental Commitments*, Victor, Raustiala and Skolnikoff (Eds.) take a slightly different approach.[43] They define 'effect' as 'the extent to which the accord causes changes in the behaviour of targets that further the goals of the accord', to which they add that they do 'not equate an accord's effectiveness with its ability to eliminate the environmental threat at hand'.[44]

The approach taken by Wettestad and Miles et al., whose studies were also considered in the previous section, are quite similar. Regime effectiveness is 'measured' as the distance to the collective optimum or, in other words, the relative improvement caused by the regime.[45] In Miles et al. the following more specific definition of regime effectiveness is also provided: 'a regime is effective to the extent that it successfully performs some generic function or solves the problem that motivated its establishment'.[46]

The above-mentioned studies on the effectiveness of international environmental agreements show the use of various definitions of effectiveness. As Bodansky states in his book *The Art and Craft of International Environmental Law* three different meanings of the term effectiveness can be distinguished: (1) legal effectiveness; (2) behavioural effectiveness; (3) problem-solving effectiveness.[47] The first meaning of effectiveness focuses on compliance, and the study of Brown Weiss and Jacobson (Eds.) could be seen as an example of the application of this approach.[48] Young and Levy relate this denotation of effectiveness to 'the degree to which contractual obligations are met, rules are complied with, policies changed, programs initiated, and so forth'.[49] The second meaning of effectiveness concentrates on the changes in behaviour by states and individuals that are caused by an international environmental agreement and contribute to the achievement of its objectives. The studies carried out by Young (Ed.) and Victor, Raustiala and Skolnikoff (Eds.) are based on this meaning of effectiveness.[50] The problem-solving approach centres on the degree to which the international environmental agreement has eliminated the problem that led to its creation. In the study carried out by Miles et al., the methodical approach as presented by Underdal is oriented towards problem-solving.[51]

In this study, compliance is seen as just one of several factors that need to be taken into account in relation to the assessment of the effectiveness of international biodiversity-related conventions, and the legal approach is therefore perceived as too narrow in scope. As Bodansky notes, 'compliance by itself is a poor indicator of a treaty's value because it is neither a necessary nor a sufficient condition for behavioural or problem-solving effectiveness'.[52] The disadvantage of the behavioural change approach is that it is very difficult to measure. Bodansky states in relation to this that 'it requires us to compare what takes place with what would have occurred in the absence of the treaty'.[53] Its main focus, moreover, is not directly aimed at solving the problem that led to the creation of an international environmental agreement.

The third meaning of effectiveness does relate to problem solving. As the ultimate goal of an international biodiversity-related convention should be to solve the problem that motivated its creation, the problem-solving approach is this study's preferred option. However, the enormous difficulties in relation to proving causation, which are inextricably bound up with this approach, have given rise to the need to formulate a definition of effectiveness that adds some flexibility to the problem-solving approach. This can be achieved by introducing the somewhat less demanding standard that an international

biodiversity-related convention can be considered to be effective if it can be established that is has the potential to solve the problem that led to its creation.

The following definition of effectiveness will thus be used for this study: An international biodiversity-related convention is considered to be effective when it has the potential to eliminate or substantially ameliorate the problem that led to its creation. A more detailed explanation as to why this definition has been chosen will be provided in the next section.

4. The Effectiveness Test Explained

4.1 The Methodology

As did the studies on the effectiveness of international environmental agreements discussed in section 2, this study also identifies various (often the same) factors that, as will be explained below, play a decisive role in the effectiveness of these agreements. However, in contrast to approaches taken in previous works, these factors are here used as components of the Effectiveness Test, which will be applied to assess the effectiveness of the five international biodiversity-related conventions. The working of the test will be expounded later in this section.

In a few words, the reasoning that forms the basis of the Effectiveness Test can be summed up as follows:

1. There is a serious international biodiversity-related problem that needs to be addressed by the international community;
2. To address this problem, an international convention is agreed upon by the international community;
3. If the vast majority of states, including those states that can be expected to make a significant contribution towards addressing the problem, participate in this convention, and;
4. If clear and precise objectives addressing the problem are agreed upon, and;
5. If adequate measures are laid down in the convention, where necessary supplemented and enhanced be resolutions and/or decisions of its decision-making body, and;
6. If these measures are subsequently implemented, complied with and enforced by the vast majority of parties;
7. Then the international biodiversity-related convention has the potential to solve the problem that prompted its creation.

Obviously, this is a somewhat simplistic description of complex events that in practice mayspan many decades. As discussed in the previous section, proving the causal connection between the working of the international convention and the elimination of the problem it seeks to address is a (near) impossible task, necessitating the addition of a modicum of flexibility to the definition of effectiveness. This issue will be discussed in more detail in sub-section 4.3.

The basic framework thus described identifies as relevant factors: Parties, Objectives, Measures, Implementation, Compliance and Enforcement. As will be discussed later, there is widespread consensus among commentators that these factors play a crucial role in determining the effectiveness of an international environmental convention.

In relation to the factor Measures, a clear distinction can be made between specific measures directly dealing with the problem the convention seeks to address, which are thus convention-specific, and the more general measures of a convention focused on the well-functioning of the bodies of a convention, irrespective of the problem that has to be solved.

Especially in relation to the convention-specific measures, a distinct issue to address in the assessment of the conventions concerns the possibility, if any, for a state or party to make reservations, derogations or other exceptions to one or more of the measures and its use thereof.

Concerning the general measures of a convention, this study takes the position that as a condition for an international biodiversity-related convention to be effective, measures regarding its institutional framework, the supervisory role of its secretariat, the budget, the cooperation between its bodies and relevant stakeholders, the timetables, the monitoring of progress, the communication, education and public awareness (CEPA) programmes, the incentives offered to its parties, and the compliance mechansism(s), should be included in the convention, or otherwise supplemented to it at a later stage by resolutions and/or decisions of its decision-making body.

The list of important factors determining the effectiveness of biodiversity-related conventions has thus become quite extensive, and to facilitate the comprehensive assessment of the five conventions, all factors are consolidated into ten coherent and manageable elements, which will be further denoted as: (1) Parties, (2) Institutional Framework, (3) Environmental NGOs and Other Stakeholder Groups, (4) Objectives, Measures and Timing, (5) Implementation, (6) Reservations, Derogations and Other Exceptions, (7) Monitoring, (8) Communication, Education and Public Awareness (CEPA), (9) Incentives, and (10) Compliance and Enforcement. These ten elements form the basis of the Effectiveness Test.

The choice of the factors now incorporated in the ten elements is the outcome of an extensive review of the available literature on the working and effectiveness of environmental (and other) conventions, including the studies discussed in section 2 of this chapter, combined with the application of some common sense.[54] For each element a benchmark has been formulated to be able to measure the effectiveness of a convention. All ten elements as well as their benchmarks will be briefly explained below, focusing especially on why this study views the role of these elements as crucial to the effectiveness of an international environmental agreement, thereby referring to the available literature with the intention to demonstrate the inevitability of the selection of each of them. In the next section a more detailed and explanatory discussion of each element of the Effectiveness Test will take place.

Element 1: Parties

States are the main actor on the international level and only states are able to implement a convention at the national level.[55] This study takes the position that the vast majority of states must be a party to an international biodiversity-related convention for it to be effective. Since the problem that must be solved is of an international nature it follows that the greater the number of participating states, the more likely it is this will be achieved. It is especially important that those states that can be expected to make a significant contribution towards addressing the problem the convention intends to resolve, for

instance because of their natural, political or financial resources, become a party. In sub-sectioo 5.1 a more detailed exploration of this element will be presented.

The selection of this element is supported by various commentators, including Sand,[56] underlining the importance of the participation of developing countries, Jacobson and Brown Weiss,[57] stating that the more countries have ratified the convention (and the greater the extent of their implementation and compliance), 'the greater the probability of implementation and compliance by any individual adhering country', and Miles, acknowledging that 'all significant states must participate in the regime'.[58]

The latter point is further reinforced by Bodansky when he notes that 'a regime is more likely to be successful if it is backed by a powerful state such as the United States'.[59]

To be able to measure a convention's performance in relation to this element of the Effectiveness Test a benchmark must be formulated. Obviously, the requirement of the participation of the vast majority of states needs supplementing with a quantifiable standard. In this case the 'three-quarter' criterion is chosen as the practical substitute for 'vast majority'.

Based on these considerations, the benchmark for this first element is the following: A biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.

Element 2: Institutional Framework

In this study, the position is taken that an international environmental agreement needs to have an institutional framework in place to be able to function in an effective manner. As discussed in Chapter II, some of the early environmental conventions, such as the Western Hemisphere Convention, the Birds Convention and the African Nature Convention, never came to fruition, mainly because they lacked such a framework.[60]

The decision-making body is the supreme organ of a convention and it usually (but not always) consists of representatives of all the parties. Since it is crucial for the development of a convention that decisions are made on a regular basis this body should be firmly in place and functioning competently. Typically, various subsidiary bodies are established as well, and in this study the existence of a scientific body is considered to be especially significant since it should inform and advice the decision-making body on relevant scientific, technical and technological developments. Finally, a convention needs a secretariat, a body which in most cases is provided for in the convention. The secretariat manages the affairs of the convention on a daily basis and is often the sole permanent body. It liaises with all relevant stakeholders and handles public relations. Although the Institutional Framework element deals with the more traditional tasks of a secretariat,[61] this study deems it necessary that the secretariat performs an active supervisory role as well. This will be discussed in more detail under Element 5: Implementation and under Element 10: Compliance and Enforcement.

Besides the three bodies discussed above, most of the conventions assessed in this study will have established additional bodies, such as a standard committee and/or special working groups. The presence of these subsidiairy bodies is here considered to be a useful feature, but not a basic requirement for effectiveness.

Many authors seem to agree on the necessity for an international environmental convention to have an institutional framework. In the study on the effectiveness of international environmental agreements by Sand (Ed.) the existence of these bodies is in fact taken as a prerequisite for several factors used to determine effectiveness.[62] Ulfstein states that these bodies 'have important roles in developing the substantive commitments of MEA parties',[63] while Bodansky notes that they 'help keep attention focused on an issue, build trust, and enmesh states in a web of collective expectations'.[64] Their importance is also underlined by Birnie, Boyle and Redgwell.[65]

It is, however, essential that the bodies of a convention have an adequate financial budget available to carry out their tasks. See sub-section 5.2 for more details on this issue.

This point has also been confirmed by various commentators. For instance Brown Weiss discusses the importance of an adequate budget,[66] the United States General Accounting Office refers to this point by stating that the secretariats of international environmental conventions are often ineffective due to insufficient funding,[67] and Chambers underlines that adequate financing of a multilateral environmental agreement 'is without question one of the key factors for an effective treaty'.[68]

The following benchmark has been formulated for this second element: A biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.

Element 3: Environmental NGOs and Other Stakeholder Groups

The parties as well as the bodies of an international biodiversity-related convention can not act in isolation, and cooperation with relevant stakeholder groups is considered by this study to be essential for the effectiveness of these conventions. The stakeholder groups that are most relevant in this respect are the environmental NGOs, scientists, other environmental conventions, international and regional organisations and the corporate sector. With their specific know-how, experience, influence and (in some cases) financial resources, these stakeholders have the capacity to contribute significantly to the development of these conventions. The cooperation between a stakeholder and the bodies of a convention can take different forms, including participating in the meetings of the decision-making body, entering into a cooperation agreement or holding an influential advisory position. In sub-section 5.3, the most important stakeholders and their possible contribution to a biodiversity-related convention will be discussed in more detail.

There is widespread agreement among experts about the significance of this element in relation to the effectiveness of international environmental agreements, and many authors have emphasised the role of the various stakeholders with regard to this issue. For instance, the importance of the participation of environmental NGOs, especially on the international level, is acknowledged by many commentators including Spiro,[69] Victor, Raustiala and Skolnikoff,[70] Bodansky,[71] Ardia,[72] Jacobson and Brown Weiss,[73] Sand (Ed.),[74] Birnie, Boyle and Redgwell,[75] and Young.[76] In his extensive article on the role of environmental NGOs in international environmental law, Gillespie puts it aptly by stating that 'non-governmental organisations (NGOs) are broadly recognised as providing positive values and inputs to the vast majority of environmental debates at the international level'.[77]

Somewhat less attention is paid to the role of the scientific community as a stakeholder group, perhaps because many international environmental NGOs act in a scientific capacity

as well. However, Birnie, Boyle and Redgwell do acknowledge its importance and state that 'a number of international [scientific] organisations exist specifically to provide independent scientific advice and research on matters of environmental importance'.[78] Furthermore, in *The Oxford Handbook of International Environmental Law*, Andresen and Skjærseth point out that science contributes to enhance the effectiveness of international environmental policy,[79] while Gehring remarks that 'the development of international environmental law depends heavily on the proper scientific understanding of environmental problems'.[80]

Cooperation between the bodies of biodiversity-related or other environmental conventions is also seen by several authors as essential for the effectiveness of these conventions. Examples are Chambers, who claims that interlinkages between treaties 'must be considered as an important factor for treaty effectiveness',[81] and Ulfstein.[82]

The relevance of cooperation between environmental treaties and international and regional organisations has also been discussed by some commentators, such as Jacobson and Brown Weiss, who state that these organisations 'have important roles in promoting the implementation and compliance with international accords',[83] and Sand.[84]

It has also been recognised by some authors that the involvement of the corporate sector in the implementation of and compliance with international environmental agreements has become increasingly important. Ratner, for instance, observes that 'many business entities have access to significant resources to promote compliance with international environmental law',[85] and Levy and Newell argue that 'the effective implementation of international environmental agreements requires the active cooperation of large multinational companies that possess adequate financial, technological, and organisational resources to innovate and commercialise new technologies'.[86]

Now the importance of this element has been established, the following benchmark has been formulated for this third element: A biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.

Element 4: Objectives, Measures and Timing

As it forms the basis of the application of the Effectiveness Test, the problem that each of the five conventions assessed in this study seek to address needs to be unambiguously described, based on all available relevant information. Clear and precise objectives dealing with this problem must have been defined and laid down in the convention or otherwise in a resolution or decision of its decision-making body. In other words, it should be apparent what the convention intends to achieve and, if realised, whether or not this will indeed fully solve the problem.

Some commentators have underlined the importance of this point. For instance, Chambers states that 'though difficult in some circumstances to decipher, the core objectives of a treaty represent the baseline for judging effectiveness'.[87] In the study edited by Sand 'objectives' is chosen as one of the criteria for evaluating the effectiveness of international environmental agreements,[88] and Sands remarks that 'international law can be most effective where it is applied to address clear objectives'.[89]

The next step to consider is whether the convention specifies adequate measures to address the problem. These measures may be supplemented and enhanced by resolutions and/or decisions of its decision-making body, which, although non-binding, can still be critical to solving the problem.[90]

The need for appropriate measures is recognised by several commentators, such as Jacobson and Brown Weiss when they discuss the importance of 'the nature of the obligations contained in the accord',[91] and Wettestad when he considers 'the strength of regime regulations'.[92] Chambers underlines the importance of non-binding provisions, which he claims 'play a significant role in achieving the objectives of the treaty' and are therefore 'another aspect of [its] effectiveness'.[93] This point is also made by Bodansky stating that 'in some circumstances, non-binding instruments may be more effective than binding ones by allowing states to adopt clear and ambitious commitments even when they are not sure they will be able to comply'.[94]

It is rather unusual for most conventions to have timetables included, but, as will be further discussed in sub-section 5.4, time-related targets may be introduced by the decision-making body of a convention at a later stage. In this study the position is taken that the introduction of time-related targets can greatly enhance the effectiveness of an international environmental agreement by creating a sense of urgency and intensifying the pressure felt by the parties, the bodies of a convention and the stakeholders concerned to act, and by enabling the general public to scrutinise their performance in relation to the objectives of the convention.

This factor has only received relatively limited attention from commentators. However, a very interesting article on the importance of the use of timetables in relation to the effectiveness of international environmental law and policy has been written by Dernbach. He stresses that setting targets and timetables, among other things, help to identify priorities, clarify the objectives, demonstrate commitment, and for long term objectives, provide benchmarks of progress through short-term goals.[95] Obviously, many modern management and organisational studies also clearly recognise the importance of the concept of timing.[96]

This leads us to the benchmark chosen for this fourth element: A biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.

Element 5: Implementation

The implementation by the parties of the measures of an international biodiversity-related convention is obviously of paramount importance for its effectiveness. In this study the position is taken that the vast majority of parties must have implemented the core provisions of a biodiversity-related convention for it to be effective. Since the term 'vast majority' is not specific enough, the 'three-quarter' criterion has been chosen as a quantifiable alternative.

Several different definitions of the term implementation in relation to international environmental agreements have been applied by various commentators. In this study implementation refers to *inter alia*, all relevant laws, regulations, policies, and other measures and initiatives, that parties adopt and/or take to meet their obligations under a multilateral environmental agreement and its amendments, if any. This definition of implementation has been developed by UNEP.[97]

A number of influential authors have considered the role of implementation in relation to the effectiveness of international environmental agreements. A remarkable study in this respect is by Victor, Raustiala, and Skolnikoff (Eds.).[98] They see implementation as one of

the most important factors for effectiveness.[99] Jacobson and Brown Weiss also focus on the implementation of (and compliance with) environmental treaties, and the purpose of their study is to discover the factors that bring about improved implementation.[100] The factors they subsequently concentrate on are the characteristics of the activity (for instance the destruction of important habitats) and of the accord, the international environment, and factors involving a country.[101] The significance of national implementation for the effectiveness of international environmental law is also considered in detail by Redgwell,[102] while Bowman, Davies and Redgwell state that 'obviously it is not the mere adoption but the effective implementation of treaty obligations which is necessary to achieve the goals originally set by the negotiating states'.[103]

These commentators confirm the significance of implementation for the effectiveness of international environmental agreements. A more detailed account of the importance of this component of the element will be provided in sub-section 5.5.

Another factor included in this element of the Effectiveness Test concerns the supervisory role of the secretariat in relation to the implementation of a convention by the parties. This study takes the view that the implementation of a convention by the parties must be supervised, and as the secretariat is the sole permanent body of a convention and also the one receiving the national and other reports concerning the parties' implementation activities, as well as additional information from stakeholders such as environmental NGOs, it is the most appropriate body to carry out this responsibility. The supervising activities of the secretariat must include verifying the data received, synthesising it in a comprehensive report and making this information available on a regular basis to the decision-making body, the stakeholders and, via the website, to the general public. This responsibility allocated to the secretariat will be furter expounded in sub-sections 5.5 and 5.10.

Although several authors, including Brown Weiss,[104] and Wettestad,[105] underline the important role of the secretariats of international environmental agreements, and others, such as Raustiala and Victor, emphasise the significance of the availability of sufficient data on implementation,[106] only few commentators have combined these perceptions. One of these is the United States General Accounting Office, which claims that in relation to supervising international environmental agreements, the role of the secretariats is to help implement agreements by collecting and distributing information, but that secretariats should also be given the authority to monitor the agreements through verifying the information reported by the parties or independently assessing compliance.[107] Another one is Ardia, who notes that 'the majority of monitoring and enforcement work logically falls on the treaty secretariat who is typically responsible for implementation'.[108]

The following benchmark has been chosen in relation to this fifth element: the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.

Element 6: Reservations, Derogations and Other Exceptions

The inclusion of the possibility to make reservations, derogations and other exceptions in international environmental agreements is quite common. These instruments are mostly introduced at the negotiating stage of a treaty to gain wider acceptance by states and are therefore generally considered to be useful instruments. As discussed under Element 1, the

more parties participate in an international biodiversity-related convention, the more effective it will be. In sub-section 5.6 reservations, derogations and other exceptions are examined in more detail.

The downside of the use of these instruments is that they could have a significant negative effect on the realisation of the objectives of a biodiversity-related convention (for instance because reservations made by parties lead to over-exploitation of certain protected species) and thus may severely restrict its effectiveness. This is the reason this element must be included in the Effectiveness Test.

Some commentators have discussed this connection between the use of reservations and the effectiveness of treaties. Sand (Ed.), for instance, has included the possibility to make reservations and the extent of their use as one of the criteria for the effectiveness of international environmental agreements,[109] while Klabbers has referred to reservations as 'a necessary evil'.[110] Ardia states that 'although the capacity to unilaterally withdraw, either legally or clandestinely, may increase the likelihood that a State will agree to an international norm, this power can seriously undermine the enforcement and effectiveness of environmental initiatives'.[111]

The following benchmark for this sixth element has been formulated: Reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).

Element 7: Monitoring

In this study monitoring is understood to mean the review and analysis of the data and other information that allows assessment of the impact or extent of progress regarding the realisation of the objectives of a biodiversity-related convention.[112] The view is taken that as a prerequisite for the effectiveness of an international environmental agreement, the decision-making body of the agreement needs up-to-date, reliable scientific information to be in a position to monitor progress towards the realisation of the agreement's objective(s). This element will be discussed in more detail in sub-section 5.7.

Several commentators underline the importance of this element. Jasanoff indicates that 'one cannot [ ] afford to ignore the role of science and technology in any comprehensive attempt to examine the implementation of environmental agreements',[113] and the United States General Accounting Office states that monitoring (as defined above) is 'necessary to determine whether a nation individually and all nations collectively, are complying with their international commitments' and that 'monitoring can be done to determine both procedural compliance and effectiveness'.[114] Raustiala and Victor claim that data on the environmental problem at hand is needed to, among other things, 'assess the adequacy of existing commitments'.[115]

The benchmark that has been chosen for this seventh element is the following: The decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).

Element 8: Communication, Education and Public Awareness (CEPA)

The Commission on Education and Communication of the IUCN (IUCN CEC) describes CEPA as the term 'used to refer to the suite of social instruments named in various international

conventions and regional instruments that build support, inform, engage and empower people and bring about a change in action'.[116] This study takes the position that the parties and the bodies of an international biodiversity-related convention have to communicate to and educate the public on the importance of the convention to create public awareness. If people are well-informed about legislation protecting biodiversity, it is now broadly accepted that this will contribute towards achieving environmental objectives.[117] In sub-section 5.8, the necessity of communication, education and public awareness in relation to solving environmental problems will be addressed in much more detail.

To be able to introduce CEPA in a structured way, comprehensive CEPA programmes must be developed at the international as well as at the national level. In this study it is therefore considered essential that the decision-making body of a biodiversity-related convention has developed a comprehensive CEPA programme and that the vast majority of parties have developed such programmes at the national level. Furthermore, public access to up-to-date information concerning matters relevant to the convention must be provided through the internet and other channels by the decision-making body to achieve maximum transparency.

It is widely recognised that communication, education and public awareness are important factors in relation to the effectiveness of an international environmental agreement. The IUCN CEC, an outspoken advocate on the subject, finds in one of their publications that 'at the international level, contracting parties agree that CEPA is essential to achieving the objectives of the multilateral environmental agreements' and that 'at the national level, governments (and non-governmental organisations) agree that these instruments are essential to achieving national (and/or organisational) objectives'.[118] Various authors also acknowledge the importance of this element. For instance, Victor, Raustiala and Skolnikoff state that 'often the most important factor in determining whether international regimes can be effective is public concern',[119] while Jacobson and Brown Weiss refer to the importance of public awareness in relation to the strengthening of compliance with environmental accords.[120] Sand also underlines the importance of programmes to promote public awareness, the preparation and distribution of guidance material and specialised training in connection to increasing the effectiveness of international environmental agreements.[121]

The following benchmark has been formulated for this eighth element: The decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties. (As in the case of some other benchmarks, the 'three-quarter' criterion has been chosen as a quantifiable alternative to the 'vast majority')

Element 9: Incentives

Biodiversity-related conventions commonly offer one or more incentives to induce states to become a party and to subsequently implement the treaty. In this study the view is taken that incentives can greatly enhance the effectiveness of a biodiversity-related convention. A meaningful offer of financial assistance to parties, especially to those parties that are developing countries, that can substantially ease the burden of implementation, is here considered to be particularly important, but other incentives, such as international

assistance, information, cooperation, and technology transfer, can also play a significant role in this respect. The various available incentives will be discussed in sub-section 5.9.

Many authors studying the effectiveness of international environmental agreements have confirmed the significance of incentives as a factor determining effectiveness. Sand for instance poses the following question as part of his survey to determine the effectiveness of international environmental agreements: 'Which incentives (e.g. financial, trade, technology benefits) are available to encourage participation and facilitate implementation by developing countries?',[122] while Chayes, Chayes and Mitchell forcefully underline the importance of capacity building.[123] Similarly, Boisson de Chazournes emphasises that 'technical and financial assistance plays an important role in the furtherance of environmental protection'.[124] The significance of the availability of sufficient resources in relation to the effectiveness of international environmental agreements is also acknowledged by Chambers,[125] as well as by the United States General Accounting Office,[126] while the following compelling statement stressing the importance of the financial resources incentive comes from the Executive Secretary of the CBD: 'financial resources are the fuel for the international biodiversity machinery'.[127]

The benchmark for this ninth element is the following: A biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.

Element 10: Compliance and Enforcement

This element comprises three important factors for the effectiveness of a biodiversity-related convention:

1. Compliance with and enforcement of a convention at the national level
2. Supervisory measures regarding the convention at the international level
3. Supervising compliance and enforcement by the secretariat of the convention

The first factor deals with compliance with and enforcement of a biodiversity-related convention by the parties at the national level. For this purpose UNEP's definition of national compliance and enforcement will be applicable: Compliance means the state of conformity with obligations, imposed by a state, its competent authorities and agencies on the regulated community, whether directly or through conditions and requirements in permits, licences and authorisations, in implementing multilateral environmental agreements;[128] Enforcement means the range of procedures and actions employed by a state, its competent authorities and agencies to ensure that organisations and persons, potentially failing to comply with environmental laws or regulations implementing multilateral environmental agreements, can be brought or returned into compliance and/or punished through civil, administrative or criminal action.[129] This study holds the view that parties have the obligation to ensure that national laws, regulations, policies and other measures related to the implementation of an international biodiversity-related convention are observed and that adequate sanctions are available where necessary, and that for a convention to be effective the vast majority of the parties must have met this obligation. If this is not the case, the effectiveness of the convention will be compromised. A more detailed account of what compliance and enforcement at the national level involves will be given in sub-section 5.10.

Various commentators subscribe to the viewpoint that compliance and enforcement of an international environmental agreement at the national level is one of the factors determining its effectiveness. In relation to this, Sand states that 'each country should develop integrated strategies to maximise compliance with its laws and regulations',[130] while Jacobson and Brown Weiss underline that 'international accords are only as effective as the parties make them' and that 'effectiveness is the result not only of how governments implement accords but also of compliance (the observance of these regulations and the commitments contained in the international accord)'.[131] In its guidelines on compliance and enforcement of multilateral environmental agreements, UNEP states that 'strengthening of compliance with multilateral environmental agreements has been identified as a key issue',[132] and that 'enforcement is essential to secure the benefits of these laws, protect the environment, public health and safety, deter violations, and encourage improved performance'.[133]

The second factor relates to the supervisory measures the decision-making body of a biodiversity-related convention has at its disposal to ensure that it receives adequate information from the parties concerning the implementation of and compliance with a convention at the national level, and to compel parties to comply with the convention's obligations. UNEP has defined compliance at the international level as 'the fulfilment by the contracting parties of their obligations under a multilateral environmental agreement and any amendments to the multilateral environmental agreement'.[134] This definition will also be applicable to this study.

Four broad forms of supervision can be distinguished: (1) Periodic and other reporting by the parties, (2) fact-finding and research by treaty institutions and others, (3) inspection by treaty institutions and (4) non-compliance procedures.These four categories have also been referred to by several commentators, including Birnie, Boyle and Redgwell in *International Law & the Enviroment*,[135] and Cassese in *International Law*.[136]

This study takes the position that for a biodiversity-related convention to be effective, both the first form of supervision (reporting by the parties) and the fourth (non-compliance procedures) should either have been included in the convention or adopted by the decision-making body at a later stage, while the reporting requirement must be complied with by the vast majority of parties. The additional availability of one or both of the remaining two categories, though not seen as vital, will strengthen the supervision of the convention even further. The four forms of supervision will be discussed in more detail in sub-section 5.10.

There is broad agreement among commentators about the significance of periodic and other reporting by the parties to the bodies of an international environmental agreement. Victor, Raustiala and Skolnikoff, for instance, consider information on implementation as 'obviously the backbone of the implementation review process',[137] while Chayes, Chayes, and Mitchell underline that 'self-reporting on measures taken to implement the treaty is often central to efforts to create a transparent information system and assure compliance'.[138] Sand puts forward as one of his criteria to determine the effectiveness of international environmental agreements the question 'how do parties report on their performance in implementing agreements and instruments, and to what extent have they complied with reporting duties?',[139] and the importance of national reporting is also underlined by Bodansky.[140] The United States General Accounting Office refers to the availability of relevant national data as 'critical to determining compliance', stating that 'data on the activities that nations are undertaking to meet their international

environmental obligations are the basis of determining whether each nation is in compliance with the agreement to which it is a party'.[141]

The availability of non-compliance procedures as one of the supervisory measures of an international environmental agreement is also widely seen as valuable. Brown Weiss finds that 'procedures for addressing non-compliance issues have been important',[142] and Klabbers underlines that they 'may have quite a lot to offer'.[143] Both Sarma and Potzold are strong advocates of the use of non-compliance procedures, with the latter stating in his paper on the subject his intention 'to demonstrate the role and use of NCPs as a potentially effective means of addressing urgent global environmental problems through international collective action'.[144] Bodansky considers treaty based compliance systems (in comparison with dispute settlement procedures) as 'a better way to promote the effectiveness of international environmental law'.[145]

The third factor covered by this element concerns the secretariat's supervision of compliance and enforcement by the parties to an international biodiversity-related convention. In this study the view is taken that the supervising role of the secretariat in relation to the implementation of a convention by its parties should, as discussed earlier in this sub-section under Element 5 and in sub-section 5.5, also extend to the parties' compliance and enforcement. This expanded role of the secretariat will be discussed in more detail in sub-section 5.10.[146]

To enable the inclusion of all three factors, the benchmark for this tenth element has been split into two components:

1. At least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.

2. A biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.
(The quantifiable 'three-quarter' criteria are chosen as the practical substitute for 'vast majority')

These ten elements and their respective benchmarks, against which a convention's current status is compared, form the basis of the Effectiveness Test.

4.2 The Working of the Effectiveness Test

The working of the test is as follows. The substantiated outcome per element will be either 'satisfactory' if the benchmark has evidently been met by the convention, or 'unsatisfactory' if the benchmark has not been met or if details are unavailable to make such judgment. By following this approach the impression of a not fully justifiable level of precision is avoided. As it is claimed that all elements of the Effectiveness Test are equally important for the

effectiveness of an international biodiversity-related convention, it is a prerequisite that a convention scores a 'satisfactory' on all of them to be 'effective'. If this is not the case, the final verdict will be 'not yet effective'. If an international biodiversity-related convention is considered to be effective it has the potential to eliminate or substantially ameliorate the problem that led to its creation. As these scores reflect the current state of affairs it is quite possible that one or more 'unsatisfactory' ratings of a convention that is now assessed as 'not yet effective' might be converted over time into 'satisfactory' outcomes.

4.3 The Causation Issue

As earlier indicated, the causal connection between the working of a convention and the extent to which the problem that a convention intends to address is solved can be impossible to establish. This is an issue that has been elaborated on by various commentators. Verschuuren and Van Gestel, for instance, note that 'the lawmaker can think of a logical causality chain behind his desk, but research has shown that, in practice, this chain is broken by numerous societal, psychological, socio-psychological and other factors',[147] while Bodansky describes the systematic evaluation of the effectiveness of international environmental agreements as a 'task [that] poses significant methodological difficulties'.[148] Young and Levy state that 'this [problem-solving] definition presents practical problems that are sometimes severe'.[149] Their caution concerns 'the difficulty to ascribe observed changes in these systems to the operation of international regimes'.[150]

To avoid becoming entangled in the causation issue, this study introduces a slightly more flexible approach towards problem-solving. As explained in section 3, the definition of effectiveness that will be used specifies that an international biodiversity-related convention is considered to be effective if it can be established that it has the potential to eliminate or substantially ameliorate the problem that led to its creation. The Effectiveness Test, which will be applied to assess the effectiveness of the five international biodiversity-related conventions, and thus their potential to solve the problem they seek to address, is a robust test founded on a sound basis that comprises ten elements, the relevance of which is supported by many commentators. An explicit and strict benchmark is attached to each of these ten elements. Nonetheless, the Effectiveness Test has been designed to be a practical, broad and indicative test that is accessible and relatively uncomplicated to apply. The information used for the assessments is to a certain extent based on synthesised data available at the international level, which is of a less than specific nature. Even though it is impracticable to prove on the basis of the Effectiveness Test that an international biodiversity-related convention that is considered to be effective has indeed solved the problem that motivated its creation, it is possible to claim that if the convention is considered to be effective, it has the potential to solve it.

Although not researched in this study or included in the Effectiveness Test, it seems plausible that more than one international agreement, possibly in combination with (unrelated) regional and/or national laws, regulations and policies could have the capacity to solve the same problem. It should therefore be noted that the method used in this study has not been devised to establish exclusivity in problem-solving. This point could be an issue, for instance, in relation to the problem of the deterioration of the inland water systems throughout the world. Obviously, the Ramsar Convention has as one of its objectives to solve this problem, but so do the CBD and (in relation to about 40 wetland sites) the World Heritage Convention, to name but a few.

In the following section the ten elements of the test will be further expounded.

5. The Elements of the Effectiveness Test Revisited

In the previous section, the ten elements of the Effectiveness Test have been briefly explained, focusing on the reasons why this study views their role as vital to the effectiveness of an international biodiversity-related convention, thereby referring to the available literature to establish the necessity of their selection. In this section, a more in-depth discussion of each element and its benchmark will be presented.

5.1 Element 1: Parties

States constitute the principal stakeholder group on the international stage and are often the only ones eligible to become a party to an international treaty. Some conventions, however, allow regional organisations, such as the European Union, to become a party as well. The effectiveness of an international treaty is to a large extent dependent upon the cooperation of states. In international law 'State' is defined as: 'a people permanently occupying a fixed territory, bound together into one body politic by common subjection to some definite authority exercising, through the medium of an organised government, a control over all persons and things within its territory, capable of maintaining relations of peace and war, and free from political external control'.[151]

A state can become a party to a convention in several ways. Usually, the process starts with the signing of the convention by a state, which is only an expression of its willingness to continue the treaty-making process. The next step is the act of ratification, by which a state 'indicates its consent to be bound to a treaty' and becomes a party to the convention.[152] Alternatives for the act of ratification are the act of accession,[153] and the instruments of acceptance or approval.[154]

i. Number of Parties

A crucial factor in relation to the effectiveness of the five global conventions assessed in this study is the number of parties. For these conventions to be effective the cooperation of the vast majority of states is essential. The aim of the institutions of the conventions should therefore be to maximise the total membership.

Some of the five biodiversity-related conventions assessed in this study came into being with only a limited number of parties, but with the intention of increasing this over the years. The Ramsar Convention and the CMS followed this approach and their development shows how much time is needed to build the numbers. The Ramsar Convention, for instance, started with only seven parties in 1975. In 1980 the list of parties had increased to 25 and by 1990, the number had risen to 51. Today 159 states are a party to this convention.[155] The CBD is an example of a treaty that started out with the vast majority of states being a party. Already in 1992, when the convention was first opened for signature, more than 150 states signed the convention. Currently, the convention has 193 parties.[156]

ii. Who are the Parties?

Worldwide, there are about 200 states, of which 192 are a member state of the United Nations.[157] For the purpose of international law, states are usually divided into developed and developing countries. There is no established definition of a developed country, but it is generally accepted that Japan in Asia, Canada and the United States in northern America, Australia and New Zealand in Oceania and most countries in Europe should be considered 'developed', although countries of Eastern Europe and the former USSR countries in Europe are neither considered developed nor developing.[158] The majority of developed countries are a member of the Organisation for Economic Co-operation and Development (OECD).[159] The requirements for a state to become a member of the OECD are: to have an open market economy and a democratic political system, and to show respect for human rights. In addition to the 30 members of the OECD some other states are also considered to be developed countries.[160]

The developing countries comprise the vast majority of states. There is also no generally used definition of a developing country. However, a useful tool to categorise countries is the so-called Human Development Index (HDI). The HDI is published by the United Nations Development Programme (UNDP) and uses statistics such as income per capita, life expectancy, rate of literacy, etc. It divides countries in four categories of human development: Very High, High, Medium and Low.[161] Unsurprisingly, the countries commonly regarded as developing are mainly included in the Medium and Low categories.

When the developing countries are operating as a single negotiating bloc, they are often referred to as the Group of 77, which stands for a loose coalition of developing countries that started with 77 founding members in 1964. Nowadays it has over 130 members.[162]

Obviously, there are varying degrees of development within the group of developing countries. At the lower end of the spectrum are the countries in the Low Human Development category. This category is similar to the class of so-called Low Income Countries Under Stress (LICUS) or fragile states as used by the World Bank.[163] It comprises a group of 24 to 46 (depending on the definition) developing countries whose governments cannot or will not deliver core functions to the majority of its people, including the poor. These functions usually include territorial control, safety and security, management of public resources, delivery of basic services, and protecting and supporting the ways in which the poorest people sustain themselves.[164] The majority of these states are affected by armed conflicts. In recent years, more attention is being paid by organisations such as the World Bank and the OECD to these fragile states, which often are very rich in biodiversity.

A few years ago, scientists began measuring the environmental performance of countries and used these findings to compile an Environmental Performance Index (EPI). The index gives an up-to-date indication of the individual performance of the majority of countries as well as an interesting comparison between countries.[165] As expected, one of the conclusions in this study is that there is a strong link between the economic development of a country and its environmental performance.[166] However, this is not the case in relation to 'biodiversity & habitat', one of the six policy categories. The best performers here are all developing countries.[167] The fact that at every level of development some countries perform considerably better than their peers is remarkable, demonstrating the importance of good governance.[168] Some of the study's outcomes, especially those regarding the protection of biodiversity and habitat, will be discussed in more detail in sub-section 5.7 of this chapter.

The participation of the developed countries is considered to be of great importance for the success of the international biodiversity-related conventions. The most prominent states in this respect are the USA, the member states of the EU,[169] as well as Canada, Australia and Japan. Because of their capabilities, resources and international standing, but also because of their responsibility for the majority of environmental problems, these states can be expected to take a leading role in the protection of the environment in general and biodiversity in particular. Unfortunately, not all of these countries seem to perceive their role accordingly. In recent years, a lot of criticism has been levelled at the USA[170] and, to a lesser extent, Canada and Australia, for their reluctance to lend more support to many of the international environmental treaties.[171] The involvement of the developing countries is also essential for the success of biodiversity-related conventions. The threats to the unrivalled richness of species and habitats within their territories, which are often related to financial limitations and lack of access to relevant technologies, makes their participation hugely important.

The benchmark regarding this first element of the Effectiveness Test is as follows:

For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.

The participation of the vast majority of states will be necessary to make these conventions effective. Since the notion of 'vast majority' is not specific enough, the 'three-quarter' criterion has been chosen as a quantifiable alternative.

5.2 Element 2: Institutional Framework

For an international biodiversity-related convention to be effective, the presence of an institutional framework is essential. The bodies of such a framework can supervise the implementation of and the compliance with the convention and propose actions to improve its performance. Some of the early biodiversity-related conventions, such as the 1950 Birds Convention,[172] lacked any form of international supervisory machinery, which has contributed greatly to their current status of 'sleeping treaties'.[173] As of the 1970s, most new conventions provide for a decision-making organ, secretariat and often also a scientific body. Their functions are usually laid down in the convention as well. Where needed, additional bodies have been created, mostly appointed by the decision-making organ. The performance of the organs or bodies that form part of the institutional framework is closely related to the functions and powers allocated to them. It is however possible that a body such as the secretariat is able to assume extra responsibilities. The proper funding of the institutional framework is obviously a necessary condition. Other issues such as the quality and experience of management and staff and the absence of unnecessary bureaucracy are also relevant but hardly practicable to evaluate from the outside, and will therefore not be taken into account in this study.

As discussed in the previous section, this study takes the position that it is necessary for an international biodiversity-related convention to have at least the following three bodies in place and well functioning: decision-making body, secretariat and scientific body.

i. The Decision-Making Body

Each of the biodiversity-related conventions assessed in this study has a decision-making body, which usually comprises representatives of all the parties and is often referred to as the Conference of the Parties (COP).[174] The specific functions of this organ are laid down in the convention. These typically include the review of the implementation of the convention, the adoption of decisions or resolutions, protocols and amendments, the appointment of subsidiary bodies, the adoption of the budget and the review of advice. The decisions or resolutions adopted by the decision-making body over the years clarify, develop and in some cases expand the measures as laid down in a convention. They are not binding and often referred to as soft law. The frequency of the meetings of the decision-making body varies from annually to triennially.[175]

Important questions that will be looked at in relation to the functioning of the decision-making body are: Is it carrying out all its tasks? Is it meeting at least as frequently as required by the convention? Has it adopted rules of procedure for its meetings? Has it laid down its decisions and resolutions and documented its proceedings?[176]

ii. The Secretariat

The secretariat is the body responsible for a wide range of administrative tasks and most external contacts. It is usually headed by an executive secretary. The proper functioning of the secretariat of a convention is considered to be an important contributing factor to the effectiveness of a convention.[177] Organising the meetings of the decision-making body and other meetings, collecting reports from the parties and compiling and distributing reports to the relevant bodies of the convention, making contractual arrangements, drafting official documents and commissioning studies are some of the tasks of the secretariat. It may also be responsible for the implementation of programmes and projects or perform important monitoring work. External contacts may be maintained by preparing and sending out press releases, organising and updating the website of the convention and by regularly keeping in touch with various stakeholders, including the environmental NGOs. The secretariat is accountable to the decision-making body.

iii. The Scientific Body

Most biodiversity-related conventions have established a scientific body in some form for the provision of scientific, technical and technological information and advice. To fulfil its tasks professionally it is important that this body is made up of independent scientists instead of public officers serving a political agenda rather than a scientific one.[178]

iv. Other Bodies

In some cases, the decision-making body may decide to establish a standard committee. This is a smaller group of representatives of the parties (often one representative per

region) that meet more frequently. Generally, its main functions are to guide progress and to prepare meetings of the decision-making body. Obviously, it cooperates closely with the secretariat.

It is quite common that each party to a biodiversity-related convention appoints a national contact point responsible for the day-to-day relations with the secretariat of the convention as well as with other stakeholders.

A limited number of international environmental conventions have added a body to their institutional framework to facilitate and monitor parties' compliance with their obligations under the legislation. This is usually laid down in a so-called non-compliance procedure. The 1987 Montreal Protocol to the Ozone Convention, for instance, provides for an Implementation Committee that deals with cases of non-compliance. Under the 1997 Kyoto Protocol to the UN Framework Convention on Climate Change, a Compliance Committee was established in 2006 made up of two branches, a facilitative branch and an enforcement branch. These bodies and the non-compliance procedures will be discussed in more detail in sub-section 5.10.

v. The Funding of the Institutional Framework

The regulation concerning the funding of the institutional framework is often set out in the convention. The parties are required to pay contribution, which is usually the convention's main source of income. Additional income may be received in the form of voluntary contributions of the parties and contributions from non-party states, NGOs, governmental organisations, trust funds and the private sector. Obviously, a professional performance by the secretariats and the other bodies of the conventions can hardly be expected if they are regularly confronted with a lack of financial resources.[179] Not all parties have a good record regarding the timely payment of their contributions and some conventions or their decision-making bodies have introduced sanctions against parties that have failed to settle their financial obligations.

As explained in the previous section, this study takes the position that it is essential that the bodies of a convention have an adequate budget available to perform their tasks. To be able to assess whether or not the financial budget of a convention is adequate, the costed work plan of a secretariat will be compared with the available budget, other relevant documents concerning the budget will be scrutinised, and any available internal or external audits of a secretariat will be examined. These audits usually review the secretariat's organisational structure, workload and resources.

The benchmark regarding this second element of the Effectiveness Test is as follows:

For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.

5.3 Element 3: Environmental NGOs and Other Stakeholder Groups

States are the principal stakeholder group in relation to the five biodiversity-related conventions examined in this study, but they are definitely not the only actors influencing the effectiveness of these instruments. As discussed in sub-section 4.1, various other

stakeholder groups are important in this respect too, of which the group of environmental NGOs is probably the most prominent.[180] The involvement of one or more stakeholders or stakeholder groups with a convention can be regulated in the text of the convention, but may also be initiated by its decision-making body at a later stage. The major stakeholder groups (other than states) that are relevant to the biodiversity-related instruments assessed in this study as well as their most important representatives are briefly reviewed below.

i. Environmental NGOs

There are numerous environmental NGOs active in the area of biodiversity protection, but only a limited number operate on an international level. International organisations such as the International Union for Conservation of Nature and Natural Resources (IUCN), the Worldwide Fund for Nature (WWF), BirdLife International, and Wetlands International work closely with the bodies (especially the secretariats) of some or all of the conventions assessed in this study. Greenpeace International, another well-known international environmental NGO, usually takes a different approach, drawing attention to various biodiversity-related issues through striking events and other forms of direct action. Most of the international NGOs have an extensive network of national offices as well.

The IUCN is the world's oldest global conservation body.[181] Its mission is 'to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable'.[182] The main tasks of the IUCN are to support and develop scientific information regarding biodiversity, to implement this knowledge in conservation projects all over the world, to give policy advice and technical assistance to UN organisations, international conventions, governments, companies and communities, and to help with the implementation of laws and policies. It has offices around the world and about 1,000 employees. The organisation, although generally referred to as an environmental NGO, is actually a semi-NGO since many states and government agencies are members. In view of the fact that it appears to operate relatively independently, it will be considered an environmental NGO in this study.[183]

The WWF was established in 1961 and has offices in over 90 countries. Its mission statement is 'to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature by: conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable and promoting the reduction of pollution and wasteful consumption'.[184] It employs around 5,400 people across the world.[185]

BirdLife International strives 'to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources'.[186] Its operation is based on partnerships with national or regional NGOs with a special focus on conservation and birds. It has over 4,000 staff and is active in over 100 countries and territories.[187]

'To sustain and restore wetlands and their resources for people and biodiversity' is the mission of Wetlands International.[188] This international environmental NGO is active since 1954 and has a staff of around 150 and 20 offices around the globe. Just like the IUCN, it allows states and government agencies to be members of its organisation.

The activities of international environmental NGOs are diverse, but the following can be considered the most significant. Firstly, over the years these NGOs have been building up

invaluable knowledge and expertise that they are willing to make available in support of the various conventions. In order to monitor the state of the world's species, the IUCN has for instance set up the IUCN Red List of Threatened Species. Another example is BirdLife International's listing of potential Ramsar sites, which is obviously of great value to the institutions of the Ramsar Convention.[189] Secondly, they frequently prepare position and information papers on various issues, which are used by the secretariats of the conventions for meetings or reports. Thirdly, the international environmental NGOs can act as environmental watchdogs. They are in a position to critically follow the institutions of the convention as well as the parties with regard to their implementation of and compliance with a convention. Where possible, they may also play a role in non-compliance procedures adopted by the decision-making body of a convention.[190] Fourthly, all over the world international environmental NGOs are directly involved in biodiversity-related projects, often in cooperation with the secretariats of the biodiversity-related conventions.

Besides the influence of these international environmental NGOs, the importance of national environmental NGOs for the implementation of and compliance with biodiversity-related conventions by the states parties should not be underestimated. Operating solely on a national level and often focusing on a limited number of issues, they are in an excellent position to scrutinise the activities of their local, regional and/or national government or other stakeholders and to take (legal) action when deemed necessary. Most of the international environmental NGOs are also active on a national level (such as the WWF) or liaise with national partner NGOs (BirdLife International).

The effectiveness of a biodiversity-related convention is served by close cooperation between its bodies and the most relevant international environmental NGOs. These NGOs should be facilitated to participate in the affairs of the institutions of the convention and should be given the right to make oral or written contributions. Usually, this only concerns a limited number of NGOs for each convention. The other environmental NGOs, national or international, that have a less immediate interest in a convention should at least be allowed to attend the meetings of the decision-making body.[191]

ii. Scientists

Scientific data are enormously useful to the parties and the bodies of the biodiversity-related conventions since the assessment of the need for and the effectiveness of actions to halt the dramatic loss of species and ecosystems involves processes that cannot be readily observed or evaluated. Scientists are needed to study and analyse these and many other environmental issues to provide relevant and objective information upon which to base decisions and actions. They can be attached to a wide variety of institutions, including universities, botanic gardens and environmental NGOs.

For scientists working on international environmental issues such as biodiversity, close collaboration is crucial and peer reviews and mutual visits are part of a longstanding tradition. As of the second half of the 19th century, it became customary to meet at international congresses. In 1919, the International Union of Biological Sciences (IUBS) was established with the objective to promote the study of biological sciences.[192] The IUBS was one of the founding members of the International Council of Scientific Unions (ICSU), now known as the International Council for Science (ICSU),[193] which was established in 1931 to promote international cooperation among scientists.[194] Today, the council has an extensive network and is often called upon to speak on behalf of the global scientific community. In

1969, it founded the Scientific Committee on Problems of the Environment (SCOPE) with the intention of addressing environmental issues. There are currently four Global Environmental Change programmes in place that have been initiated or are co-sponsored by the ICSU. Of these four programmes, the international programme of biodiversity science (DIVERSITAS) appears to be the most relevant to this study.[195] Established in 1991, its goal is 'to provide accurate scientific information and predictive models of the status of biodiversity, to find ways to support a more sustainable use of the Earth's biotic resources, and to build a world-wide capacity for biodiversity science'.[196]

Scientific work done by the international NGOs, especially in relation to the monitoring of species and ecosystems, is also of great importance. The IUCN, for instance, has developed the Red List System that is invaluable for the monitoring of biodiversity-related conventions.[197]

The conventions assessed in this study have a need for sound scientific data and analysis, and close collaboration with the relevant scientific groups and institutions is therefore of paramount importance.

iii. Bodies of Biodiversity-Related and Other Environmental Conventions

The institutions of each of the five biodiversity-related conventions examined in this study are also important stakeholders of the other four conventions. This has been acknowledged to some extent and actions have been taken to improve cooperation between the secretariats and scientific bodies of these conventions. A Biodiversity Liaison Group has for instance been established as well as a joint website.[198]

Obviously, many other environmental conventions also share common ground with one or more of these five biodiversity-related instruments. Some notable examples are the 1982 UN Convention on the Law of the Sea,[199] the 1992 UN Framework Convention on Climate Change,[200] and the 1994 UN Convention to Combat Desertification.[201]

In each of the following chapters these relationships will be further examined.

iv. International and Regional Organisations

International and regional organisations form an important stakeholder group as well. They often have expertise and experience in certain areas relevant to some or all of the biodiversity-related conventions. A number of organisations within this group will be briefly discussed below since they are of particular importance to one or more of the instruments assessed in this study.

The United Nations Environment Programme (UNEP) was founded in 1972 by the UN General Assembly as a result of the Stockholm Conference.[202] Its head office is based in Nairobi, Kenya, and the day-to-day responsibility of the secretariat rests with the UNEP executive director. UNEP's mission is 'to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations'.[203] It plays a crucial role in the promotion and development of international environmental law and is unique in the sense that it is the only UN body completely dedicated to international environmental issues. CITES, the CMS and the CBD were all concluded within the UNEP framework.

The main responsibilities of UNEP include the promotion of international cooperation regarding environmental issues and policies, the monitoring of the status of the global environment, the creation of environmental awareness, the coordination of UN activities in relation to the environment, and the development of international environmental law.[204] UNEP has established various information networks and monitoring systems, and collaborates with the World Conservation and Monitoring Centre (WCMC) with regard to the synthesis, analysis and dissemination of global biodiversity knowledge.[205]

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) was established in 1945 and has its headquarters in Paris, France. Its aim is to contribute to the building of peace, the alleviation of poverty, sustainable development, and intercultural dialogue through education, the sciences, culture, communication and information.[206] The World Heritage Convention is operating under the auspices of UNESCO.

The Food and Agriculture Organisation was founded in 1945 and is headquartered in Rome, Italy. The objective of this specialised UN agency is to defeat hunger, and it provides knowledge, information and advice in relation to agriculture, forestry and fisheries practices. The International Plant Protection Convention (IPPC) operates under its auspices.[207]

The United Nations Development Programme (UNDP) is considered to be the UN's global development network. It was established in 1965 and is based in New York, USA. It is 'an organisation advocating for change and connecting countries to knowledge, experience and resources to help people build a better life'.[208] One of its Focus Areas is biodiversity.

The World Bank was founded in 1944 with the objective to offer financial and technical assistance to developing countries. The World Bank is in fact a group of five organisations, of which the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA) are the most relevant to this study.[209] The IBRD focuses on middle income and creditworthy developing countries, while the IDA concentrates on the poorest countries. The World Bank is owned by its 186 member countries, who are its shareholders. They are represented by a Board of Governors, which meets annually. The day-to-day management is the responsibility of 24 Executive Directors. The President of this Board of Directors is a national of the USA, the largest shareholder. The World Bank has more than 10,000 employees and about 100 offices around the world. Its headquarters are in Washington, DC, USA.[210]

Initially, the reputation of the World Bank in relation to the protection of the environment was questionable.[211] It was only in the late 1980s that the World Bank created an Environmental Department and became more concerned about the environmental impact of the projects that it supports. Today, the World Bank is much more involved in environmental issues and plays a major role in financing biodiversity-related projects. Between 1988 and 2008, over USD 6 billion was committed to projects supporting biodiversity conservation and sustainable use. Almost a quarter of this sum was made available in the form of grants through the Global Environment Facility (GEF),[212] which was established in 1991 to provide financial support for investment projects, technical assistance and research to developing countries in order to protect the global environment and to transfer environmentally benign technologies.[213] The GEF serves as the financial mechanism of the CBD and biodiversity is one of its six focal areas.[214] The governing body of the GEF is the GEF Assembly, in which representatives of the 180 member countries participate. A selection of member countries forms the GEF Council, which is the main

governing body. The council members represent 32 constituencies and meet twice a year. The GEF Secretariat is based in Washington, DC, USA.[215]

The World Trade Organisation (WTO) was founded on January 1, 1995 with the objective of liberalising world trade. It replaced the General Agreement on Tariffs and Trade (GATT), but adopted the GATT rules. It has 153 members and its Secretariat is located in Geneva, Switzerland.[216] A dispute settlement procedure was developed to deal with any international trade conflict that could arise. It has been used extensively over the years and is considered to be the most useful and successful means of dealing with disputes on an international level.[217] The promotion of free trade by the WTO can only be realised by restricting protectionist behaviour by the parties. However, the WTO parties have introduced some environmental rules and regulations that allow a certain level of protectionism. The 'General Exceptions' provision of GATT, Article XX, includes measures 'necessary to protect human, animal or plant life or health' and measures 'relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption'.[218] In practice, it took the WTO Panels, charged with deciding disputes between parties, and the Appellate Body, dealing with appeals, a long time to accept that not all environmental restrictions imposed by parties are just protectionist measures. Gradually, the Panels and the Appellate Body have become more inclined to acknowledge the importance of environmental protection in relevant cases.[219]

In 2001, the WTO adopted the Doha Ministerial Declaration, which encourages efforts to promote cooperation between the WTO on the one hand, and UNEP and other international environmental organisations on the other.[220]

Most regional economic organisations only play a limited role with regard to environmental issues. A favourable exception is the European Union (EU). Its history goes back to the 1950s when the three founding treaties of the EU were signed: the 1951 Treaty establishing the European Coal and Steel Community, the 1957 Treaty establishing the European Economic Community, and the 1957 Treaty establishing the European Atomic Energy Community. The EU was established in 1992 with the signing of the Treaty on the European Union. It covers three main areas of activity: Common, Foreign and Security Policy, Justice and Home Affairs, and the European Economic Community (EEC), which was renamed into the European Community (EC) a year later. One of the main objectives of the EU is to promote throughout the Community a high level of protection and improvement of the environment.[221] At present, the EU has 27 Member States. Until 2009, the EC (but not the EU) had international legal personality and could therefore participate independently in international environmental law-making and be a party to regional and international agreements. The signing of the Lisbon Treaty on 1 December 2009 introduced legal personality for the EU.

The institutions of each biodiversity-related conventions examined in this study have some form of relationship with one or more of these organisations. Most of the conventions operate under the auspices of UNEP and one under the aegis of UNESCO. Some organisations, such as the World Bank, the GEF and the EU, are of significant importance due to the financial and other support they may be able to provide to project initiatives linked to biodiversity-related conventions. For each of the five biodiversity-related conventions assessed in this study relations with relevant international and regional organisations will be further examined.

v. Corporate Sector

The corporate sector has always had a major impact on biodiversity. The unsustainable use of land and other resources (for instance by the mining industry) as well as the introduction of non-native species (for instance by the shipping business) are just a few examples. Initially, the sector was reluctant to face up to its environmental responsibilities. A case in point is the creation in 1989 of the Global Climate Initiative by a group of large corporations and trade associations in the USA, which spent millions of dollars on public relations and aggressive lobbying to resist government plans to reduce greenhouse gas emissions. When in 1997 BP changed its position and left the group, other companies followed suit and in 2002 the Global Climate Initiative disbanded. More recently, American energy producers were found to be divided about opposing proposed legislation that would set a limit on emissions of heat-trapping gases in the USA, while several large companies have left the United States Chamber of Commerce over its resistance to this legislation.[222] These developments provide an illustration of a gradually changing attitude of the sector towards environmental issues. It should be mentioned that environmental NGOs have played an important role in influencing public and shareholders' opinion and most listed companies can no longer afford to be indifferent towards the environment.[223]

The participation of the corporate sector in the protection of the environment has now increased, and multinational companies are expected to manage their environmental resources according to high standards, to audit their performance in this area and to communicate the findings openly. Shell has for instance adopted the Shell Group Biodiversity Standard in 2001 in which it declares that it will work with others to maintain ecosystems, respect the basic concept of protected areas and seek partnerships to enable the group to make a positive contribution towards the conservation of global biodiversity.[224] In 2003, it made additional commitments in relation to protected areas including 'not to explore for or develop, oil and gas in natural World Heritage Sites'.[225]

The UN has played an active role in the 'greening' of the private sector. An initiative worth mentioning is the so-called Global Compact that was launched in 2000. Companies that join the network have to embrace ten principles covering human rights, labour standards, anti-corruption and the environment. More than 7,700 companies in 130 countries are now participating.[226] Other interesting developments in this respect are the adoption in 2003 by ten leading banks of the so-called Equator Principles, which are guidelines for managing social and environmental issues by banks in relation to the financing of development projects,[227] as well as the introduction of the Private Sector Guide to Biodiversity, which is intended to support companies that are active in emerging markets to understand and manage biodiversity in a sustainable manner. Both activities were initiated by the International Finance Corporation (IFC), the organisation of the World Bank that provides investments and advisory services to build the private sector in developing countries.[228]

In order to regulate relations between the UN organisations and the business sector, the UN launched its Guidelines on Cooperation between the United Nations and the Business Sector in 2000, which were updated in 2009.[229] The purpose of the guidelines is 'to facilitate the formulation and implementation of partnerships between the United Nations and the Business Sector in a manner that ensures the integrity and independence of the UN'.[230] Although the guidelines only apply to the UN Secretariat and separately administered organs, Funds and Programmes, it is the intention that other UN organisations will observe them as well.[231]

The corporate sector has organised itself much more comprehensively over the years, both on a national and international level, and environmental issues have become important items on the agendas of various representing groups. Some international bodies speaking on behalf of the corporate sector are the World Business Council for Sustainable Development (WBCSD), the International Business Leaders Forum (IBLF), the International Chamber of Commerce (ICC) and the International Petroleum Industry Environmental Conservation Association (IPIECA). All these organisations have committed themselves to the principle of sustainable development.

Several commentators have underlined the importance of the involvement of the corporate sector in the international environmental agreements.[232]

The institutions of the five biodiversity-related conventions share a commitment to collaborate with the corporate sector to further the implementation of their conventions. For each of the five conventions the level of cooperation with the corporate sector will be studied.

The benchmark regarding this third element of the Effectiveness Test is as follows:

For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.

5.4 Element 4: Objectives, Measures and Timing

As indicated in sub-section 4.1, the starting point for the assessment of the effectiveness of an international biodiversity-related convention is the description of the problem that has motivated its creation. In the introduction of sub-section 2.4 of the next five chapters, the problem that each convention intends to address will be presented and discussed.

To be able to solve this problem, a biodiversity-related convention requires clear and precise objectives as well as adequate measures. Usually, no timetables are found in these conventions, but it is not uncommon for the decision-making body to set specific targets in relation to timing at its meetings, which is essential to make the legislation more ambitious and therefore more effective. Each of the three components of this element will be looked at in more detail below.

i. Are Objectives Clear and Precise?

The creation of each of the five biodiversity-related conventions assessed in this study was a direct result of a serious biodiversity-related problem that needed to be addressed internationally. It is therefore a prerequisite for the success of such a convention that clear and precise objectives dealing with this problem are laid down in the convention or are otherwise defined by its decision-making body. As Sands puts it: 'international law can be most effective where it is applied to address clear objectives'.[233] It should be evident to all stakeholders what it is that parties intend to achieve, thus making it possible to assess progress, and so to increase the effectiveness of the legislation.

ii. Are Adequate Measures Available?

Adequate measures to address the underlying problem should be specified in the convention. Under this heading, it will be assessed whether the set of measures that has been agreed upon is comprehensive enough to address the problem in its entirety or only in part. The measures that are laid down in the convention could be added to and made more specific by the parties at the meetings of the decision-making body by means of resolutions or decisions, but these are usually non-binding and often referred to as soft law. Some commentators argue that states parties tend to give priority to the implementation of binding measures, which could therefore be considered to be stronger.[234] It can not be denied, however, that non-binding measures are of the utmost importance for the realisation of the objectives of a convention.[235] Dealing with the consequences of climate change is an example relevant to all five biodiversity-related conventions. When the conventions were drafted, the serious effects of climate change on biodiversity had not yet been recognised. Additional non-binding measures were therefore necessary at a later stage.[236] As Kiss has stated, 'soft law rules have the necessary flexibility to enable the international community to progress and address problems new to international co-operation'.[237] For each convention assessed in this study both types of measures will be examined. Another issue that will be looked at is the wording used. This is often kept rather vague and legally imprecise in order to maximise the number of parties supporting the measures. As a result, these measures may lose some of their robustness.[238] At the same time, it seems reasonable to assume that very demanding measures may lead to a lower level of implementation and compliance.

iii. Is there a Realistic Timetable?

In this study, it is considered important that the conventions that are assessed have a timetable available indicating when certain measures should be realised. The omission of such targets could seriously jeopardise implementation. In more recent times, most biodiversity-related conventions have introduced a strategic plan, which defines the main objectives for the convention within a specific time frame, usually five to ten years. Often, operational objectives are included in such a strategic plan as well. It is also possible that an additional programme of work has been prepared in which specific dates are fixed for the completion of certain actions. Some of the conventions that will be examined in this study have the protection of certain areas (wetlands or world heritage sites) or species (endangered migratory species) as their objective. Part of the assessment will be whether all of these areas or species already enjoy protection under the convention and, if not, whether a realistic time table to bring this about is in place.

The benchmark regarding this fourth element of the Effectiveness Test is as follows:

For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.

5.5 Element 5: Implementation

Implementation is another essential element of the Effectiveness Test. In this study 'implementation' refers to, *inter alia,* all relevant laws, regulations, policies, and other measures and initiatives, that parties adopt and/or take to meet their obligations under a multilateral environmental agreement and its amendments, if any.[239] Victor et al. have succinctly described implementation as 'the central process that turns commitments into action'.[240] Article 26 of the Vienna Convention on the Law of Treaties (Vienna Convention) states that 'every treaty in force is binding upon the parties to it and must be performed by them in good faith'.[241] This obligation is known as the *pacta sunt servanda* doctrine.[242] In its 1997 *Gabcikovo-Nagymaros* judgment, the International Court of Justice further clarified this provision by stating that in relation to the second part of Article 26 'it is the purpose of the Treaty, and the intentions of the parties in concluding it, which should prevail over its literal application' and that 'the principle of good faith obliges the parties to apply it in a reasonable way and in such a manner that its purpose can be realised'.[243] Article 27 of the Vienna Convention is also relevant to this subject. It lays down that 'a party [to a treaty] may not invoke the provision of its internal law as justification for its failure to perform a treaty'. In actual practice, parties often fail to act according to these important rules of international law. This can be attributed to a number of factors, including an absence of political will and/or a lack of financial resources.[244] It is obvious that in relation to the five conventions assessed in this study the correct and timely implementation by the states parties of the measures laid down in these conventions and the additional decisions and resolutions adopted by their decision-making bodies is essential for their effectiveness. Some relevant issues in relation to the implementation of these conventions will be looked at more closely below.

i. Implementation of the Conventions by the States Parties

It is open to states how to align national law with obligations under international law. Over the years, two different basic systems have been developed: the incorporation system and the transformation system.[245] The distinctive characteristic of the first system is that after a treaty is duly approved and published in the state's official law gazette, its rules are automatically incorporated into national law without the need for any national statute to be passed. Under the transformation system the state's parliament has to pass specific implementing legislation, which may vary from a simple act merely confirming that the treaty must be complied with, with the text of the treaty as an annex, to more detailed legislation that implements the various provisions of the treaty.[246]

The five conventions assessed in this study can be characterised as non-self-executing treaties, since many of the important provisions of these conventions need more specific national legislation, regulations or policies before they can be deemed to be effectively implemented. As a consequence the formal implementation of the treaties as described above is only a necessary first step. The transformation system, requiring specific national legislation, suits these treaties therefore better than the incorporation system.[247]

Besides passing implementing legislation, parties usually have to take additional steps to fully implement all the provisions of the convention. A case in point is the provision laid down in the CBD to 'develop national strategies, plans and programmes for the

conservation and sustainable use of biological diversity',[248] requiring further action from the parties in addition to the drafting of legislation.

The importance of the implementation of environmental conventions by the parties is underlined by the attention paid to the subject at the UN level. In UNEP's Guidelines on Compliance With and Enforcement Of Multilateral Environmental Agreements, for instance, it is laid down that 'states should enact laws and regulations to enable implementation of multilateral environmental agreements where such measures are necessary for compliance' and that 'laws and regulations should be regularly reviewed in the context of the relevant international obligations and the national situations'.[249] One of the objectives stated in Agenda 21 is that parties must 'ensure the effective, full and prompt implementation of legally binding instruments, and [to] facilitate timely review and adjustment of agreements or instruments'.[250]

It should be reminded that this study does not directly examine national data and developments, but concentrates on information made available at the international level, including reports comprising synthesised national material.

ii. Issues Related to the Implementation of the Conventions by Regional Organisations

Some of the five conventions examined in this study allow regional organisations to become a party to the convention. So far, the EU is the only regional organisation that has actually made use of this opportunity.[251]

Under international law, a regional organisation, such as the EU, as well as its member states are separate international legal persons. Therefore, if the EU becomes a party to an international agreement, this does not automatically imply that the member states become parties as well. The agreement will only be binding upon the member states if they become parties themselves. If the EU becomes a party, but its members do not, then it is the responsibility of the EU institutions to ensure that the agreement is implemented in the member states.[252]

iii. Supervising Implementation by the Secretariat of a Convention

This study takes the position that the secretariat is the appropriate body within the institutional framework to supervise the implementation of the biodiversity-related convention. The secretariat and the COP to whom it is answerable are in large measure depending on information received from the parties and, to a lesser extent, from other stakeholders, such as the environmental NGOs. The national reports that parties are usually required to submit in a standard format are their main source of information.[253] The secretariat should verify and synthesise the data it obtains from the parties and other stakeholders in relation to the implementation of the convention and report these regularly to the decision-making body. As Victor et al. state, 'information on implementation is obviously the backbone of the implementation review process'.[254] To create maximum transparency, all this information should be made public on the website of the convention.

The institutions of a convention need accurate data in relation to the implementation of the convention so to be able to take corrective actions, varying from an offer to assist to tough sanctions. As Victor et al. put it, 'we find that some implementation failures are intentional and that 'harder' measures, such as sanctions, are available and sometimes necessary'.[255] These measures could be laid down by the decision-making body of a

convention in a so-called non-compliance procedure, which will be discussed in more detail in sub-section 5.10.

Over the years, it has become apparent that the implementation of international environmental agreements by the parties is often problematic. Some commentators still favour the laissez-faire approach, which leaves the implementation of this legislation solely to the parties. One commentator argues that 'the secretariat is not in a position to be involved with implementation at the national level'.[256] In this study the opposite view is taken. Pro-active supervision of the parties by the secretariat is essential to enhance the effectiveness of the conventions. This seems in line with Ardia's claim that 'the majority of monitoring and enforcement work logically falls on the treaty secretariat who is typically responsible for implementation'.[257]

Pro-active supervision, though more costly, will more than likely lead to a considerable improvement of the implementation of the instruments and is therefore in accordance with the objective laid down in Agenda 21 'to improve the effectiveness of institutions, mechanisms and procedures for the administration of agreements and instruments'.[258]

The benchmark regarding this fifth element of the Effectiveness Test is as follows:

For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.

The implementation by the vast majority of parties will be necessary to make these conventions effective. Since the notion of 'vast majority' is not specific enough, the 'three-quarter' criterion has been chosen as a quantifiable alternative.

5.6 Element 6: Reservations, Derogations and Other Exceptions

i. Reservations

The conservation and sustainable use of species and/or ecosystems in some form or other are the basis of the five biodiversity-related conventions that are discussed in this study. Measures are laid down in these conventions to ensure this protection. However, in many cases states parties are allowed to make reservations to a convention. The 1969 Vienna Convention on the Law of Treaties (Vienna Convention), the authoritative instrument on the international law of treaties, defines 'reservation' as 'a unilateral statement, however phrased or named, made by a State, when signing, ratifying, accepting, approving or acceding to a treaty, whereby it purports to exclude or to modify the legal effect of certain provisions of the treaty in their application to that State'.[259] Allowing states to formulate reservations to a treaty may compromise the effectiveness of the instrument. On the other hand, it could be desirable for the purpose of achieving the broadest possible participation by states and/or international organisations. In his extensive article on this topic, Klabbers puts it aptly by stating that 'at best they [reservations] are often considered to be a necessary evil: necessary to attract states, but evil in their tendency to undo regimes'.[260]

The rules in relation to reservations are laid down in the 1969 Vienna Convention on the Law of Treaties and the 1986 Vienna Convention on the Law of Treaties Between States and

International Organizations or Between International Organizations (Vienna Conventions).[261] Both treaties contain similar provisions that are largely based on the 1951 Advisory Opinion of the International Court of Justice on Reservations to the Convention on the Prevention and Punishment of the Crime of Genocide.[262] What is said in this sub-section about the position of states is similarly applicable to international organisations. The most important rules on reservations in relation to this study can be summarised as follows.

States may formulate a reservation to a treaty unless (1) this is prohibited by the treaty,[263] or (2) the treaty provides that only specified reservations can be made, which do not include the reservation in question,[264] or (3) the reservation is incompatible with the object and purpose of the treaty.[265]

Three general rules are applicable regarding reservations. Firstly, when a reservation is expressly authorised by a treaty, subsequent acceptance by the other contracting states is not required unless the treaty so provides.[266] Secondly, when it appears from the limited number of the negotiating states and the object and purpose of a treaty that the application of the treaty in its entirety between all parties is an essential condition of the consent of each one to be bound by the treaty, a reservation requires acceptance by all the parties.[267] Thirdly, when a treaty is a constituent instrument of an international organisation and unless it provides otherwise, a reservation requires the acceptance of the competent organ of that organisation.[268]

If in a specific situation these general rules do not apply, individual contracting states can choose to accept or to object to the reservation of the reserving state. A reservation is considered to be accepted by a state if it has raised no objection within twelve months after notification of the reservation, or by the date on which it expressed its consent to be bound by the treaty, whichever is later.[269] Acceptance by another contracting state of the reservation made by the reserving state constitutes the reserving state a party to the treaty in relation to that other state.[270] The accepted reservation leads to a modification of the treaty between those two states 'to the extent of the reservation'.[271] If only one state has accepted a reservation of a reserving state, that reserving state becomes a party to the treaty.[272]

In case another contracting state objects to the reservation made by the reserving state, it has two options. It may refuse to have any treaty relations with the reserving state, or it may opt for the entry into force of the treaty between itself and the reserving state with the restriction that the provisions to which the reservation relates do not apply between the two states to the extent of the reservation.[273]

Finally, it should be noted that reservations as well as objections to reservations may be withdrawn at any time.[274]

The above mentioned rules in relation to reservations may result in a treaty that is governed by a network of very complicated bilateral relationships with the consequence that it is not one and the same treaty that is applicable to all parties.

The international community has recognised that the Vienna Convention rules in relation to reservations are often too general and that many aspects need further interpretation. This has resulted in a proposal from the International Law Commission (ILC) to clarify these provisions, which has been approved by the General Assembly in 1993.[275] One aspect being discussed by the commission that is especially important in relation to this study is the basic rule that a reservation should not be incompatible with the object and purpose of the treaty.[276] This is a very complicated issue raising questions such as: Who should decide whether a reservation is incompatible with the object and purpose of the treaty? and What

are the effects of an impermissible reservation? Under the current system, it is usually up to contracting states to object to such reservations. The Permanent Mission of the Netherlands said in its statement to the ILC on this subject: 'Objecting to a reservation contrary to object and purpose would seem to be a moral, if not legal obligation for States Parties. This follows from the role of the States Parties as guardians of that treaty. Thus it is important for a State Party to develop a consistent practice of making such objections'.[277] However, this is far from common practice today. Five judges of the International Court of Justice observed in a Joint Separate Opinion that many reservations are made by states and that only a limited number of states are making objections to these reservations.[278]

Meanwhile, the Human Rights Committee, which is overseeing the implementation of and compliance with the International Covenant on Civil and Political Rights, decided of its own accord that it 'falls to the Committee to determine whether a specific reservation is compatible with the object and purpose of the Covenant' and that in case a reservation is deemed to be impermissible, it 'will generally be severable, in the sense that the Covenant will be operative for the reserving party without [the] benefit of the reservation'.[279]

The ILC has not yet finished its deliberations about a set of guidelines on reservations to treaties. It is too early to predict the outcome in relation to many issues, including that of impermissible reservations.[280] At present, the current system as provided for in the Vienna Conventions is applicable, although it has been recognised that reservations made by states and/or international organisations may jeopardise the effectiveness of a biodiversity-related convention. This notion is reflected in the benchmark for this element of the Effectiveness Test.

ii. Derogations

A derogation clause is a provision that deviates from the main objective(s) of a convention with the intention to accommodate parties that would otherwise not support the convention. This type of provision demonstrates the fact that political compromises are sometimes unavoidable. A good example can be found in Article 2, paragraph 5 of the Ramsar Convention, which allows parties to delete or restrict the boundaries of Ramsar sites in cases of 'urgent national interests'. This study takes the position that derogation clauses should not have a considerable adverse effect on the realisation of the objectives of the convention.

iii. Other Exceptions

Besides reservations and derogations, other forms of exceptions made by parties may limit the convention's effectiveness. This could happen for instance as a consequence of the adoption by parties of one or more amendments to that convention. Often the existing agreement contains an amendment procedure. If not, the Vienna Conventions will be applicable.[281] The general rule is that a state party is not bound by the amending agreement if it does not become a party to the amending agreement.[282] Therefore, when not all the parties to the existing treaty have ratified the later agreement, 'the treaty to which both States are parties governs their mutual rights and obligations'.[283] Obviously, this can lead to some very unsatisfactory situations.[284]

Another example concerns the situation whereby states have signed and ratified a framework convention in which only general principles have been laid down and specific

agreements, protocols or annexes have to follow.[285] It is possible that one or more states subsequently fail to ratify the more detailed measures necessary to add bite to the convention. This may clearly affect the realisation of the objectives of the convention.

The benchmark regarding this sixth element of the Effectiveness Test is as follows:

For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).

5.7 Element 7: Monitoring

To ensure that progress is made on the realisation of the objectives of an international biodiversity-related convention, it is necessary to carry out intensive monitoring on a national as well as an international level. Each of the five biodiversity-related conventions assessed in this study requires specific and up-to-date information concerning the advancements made in meeting the convention's objectives. This information should be reliable and independently verified.

Few conventions provide a definition of 'monitoring'. An exception is the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (or OSPAR Convention), and although it focuses on the marine environment, the definition it provides also has merit for the biodiversity-related conventions assessed in this study. In the OSPAR Convention, 'monitoring' has been defined as: 'the repeated measurement of: (a) the quality of the marine environment and each of its compartments, that is, water, sediments and biota; (b) activities or natural and anthropogenic inputs which may affect the quality of the marine environment; (c) the effects of such activities or inputs'.[286]

Most biodiversity-related conventions have put a special body in charge of collecting and assessing relevant scientific, technical and/or technological information for the decision-making bodies.[287] The information needed to monitor a biodiversity-related convention is usually extensive. Scientists and other specialists from all over the world are contributing to biodiversity research. Numerous types of data have to be collected and communicated to interested parties. States are primarily responsible for the gathering of information relevant to their own territory.[288] On the international level, various organisations are assessing the status of biodiversity and ecosystems, including environmental NGOs, universities, botanical gardens and other specialised institutions and organisations, such as the European Space Agency, DIVERSITAS, IUBS and ICSU.[289] Of the many international monitoring activities and initiatives, the following examples are especially important.

In relation to the assessment of the status of the different species, it is the IUCN that plays a prominent role. Already in the 1960s, it introduced the IUCN Red List System, which is still the most extensive inventory of the global conservation status of animal and plant species. Covering almost every country in the world, thousands of scientific experts are involved in gathering the required species data. Evaluated species are classified in one of nine categories, three of which carry the label 'threatened with extinction'.[290] Of the almost 45,000 species that have been assessed so far, the number of species deemed threatened is about 17,000 (38%).[291]

Another initiative in relation to the monitoring of species is the TRAFFIC programme. This is a wildlife trade monitoring network set up jointly by the WWF and the IUCN,[292] which is of great value to the bodies of CITES.[293]

Protected areas around the world play a very important role in relation to the conservation of species as well as ecosystems. In view of that, the IUCN started the development of a global database on protected areas.[294] As of 1981, the World Database on Protected Areas, which is now managed by UNEP-WCMC, comprises all protected areas.[295] The number of sites has increased dramatically in the last five decades. Currently, there are over 100,000 protected areas worldwide, covering over 12% of the earth's land surface.[296] This contrasts sharply with the area of the earth's oceans that is protected, which amounts to only 0.5%.[297] The database provides a unique inventory of the protected areas around the world and is updated every 3-5 years. For each site the following information is stored: name, national designation, location, size, IUCN management category, date of designation, terrestrial, marine or coastal and bio-geographic code.[298]

The database of BirdLife International, known as the World Bird Database (WBDB), is another example of an important information and monitoring tool for some biodiversity-related conventions, such as, in this case, the Ramsar Convention. This database covers information on bird species, important bird areas and endemic bird areas and is updated regularly.[299]

The Living Planet Index is also significant in this respect. This index is an indicator of the state of biodiversity, and is based on trends in the abundance of the world's populations of vertebrate species around the world. It was originally initiated by the Worldwide Fund for Nature (WWF), which is now further developing the index in collaboration with the Zoological Society of London (ZSL). The data concerning over 8,000 population trends for more than 1,800 species of fish, amphibians, reptiles, birds and mammals are contained in the Living Planet Database, and new findings are published biennially.[300]

In 2001, an extensive study into the state of the world's ecosystems started under auspices of the United Nations. The results of this Millennium Ecosystem Assessment (MA) were published in 2005.[301] Different synthesis reports were drafted aimed at separate groups of stakeholders.[302] The MA provides information on the state of ecosystems and the services they provide, and assesses the consequences of ecosystem change for human well-being. This should be seen as a baseline study, and further regular assessments will be required to properly monitor the development of these ecosystems.

The Environmental Performance Index (EPI), of which the second version was published in 2008, needs mentioning as well.[303] It has been developed by the Center for Environmental Law & Policy at Yale University and the Center for International Earth Science Information Network (CIESIN) at Columbia University to measure the environmental performance per country.[304] Six policy categories were examined for the 2008 EPI, of which the category 'biodiversity and habitat' is especially of interest to this study.[305] The researchers relied on four indicators to assess this category.[306] In the 2008 EPI, the top 5 performing countries in the biodiversity and habitat category are: (1) Central African Republic (2) Botswana (3) Zambia (4) Laos and (5) Saudi Arabia.[307] Although the report clearly indicates that the EPI contains deficiencies due to, for instance, lack of data and scientific uncertainties, the fact that it gives data on a per country basis and makes cross-country comparisons does make it very useful.[308]

In 2002 the parties to the CBD and, at a separate occasion, the heads of state at the World Summit on Sustainable Development (WSSD) in Johannesburg, adopted the target to

achieve by 2010 a significant reduction of the current rate of biodiversity loss at global, regional and national level (2010 Biodiversity Target).[309] This made the use of indicators on a national as well as on an international level essential to be able to measure change. The following definition of biodiversity indicators is given by the Subsidiary Body on Scientific, Technical and Technological Advice of the CBD: 'environmental attributes -- often species or groups of species -- that can be sampled and whose change either in space or in time is taken to reflect a change in biological diversity as a whole'.[310] Biodiversity indicators are used as monitoring tools for the simple reason that it is impossible to monitor the entire biodiversity.[311]

Another relatively new development is the use of satellite to gather biodiversity information. Several projects have been set up with organisations such as the National Aeronautics and Space Administration (NASA)[312] and the European Space Agency (ESA)[313] to monitor aspects of biodiversity from space.

A further initiative was taken by the Group of Eight (G8) by establishing the Group of Earth Observation (GEO) in 2005. GEO is a voluntary partnership of governments and international organisations.[314] It has as its objective to build a Global Earth Observation System of Systems (GEOSS), linking together monitoring networks, instruments, data bases, and models and other decision support tools. Within GEOSS, biodiversity is one of the so-called Societal Benefit Areas, which is referred to as GEO Biodiversity Observation Network (GEO BON). In the short term, GEO BON will focus on creating a global network of biodiversity observation systems.[315]

In 2001, the Global Biodiversity Information Facility (GBIF) was established, which is one of the most important examples of a data network that provides universal online access to biodiversity data. The GBIF is a data access portal to over 130 million biodiversity-related data records, involving some 30 countries and over 200 institutions around the world.[316] The same period also saw the development of comparable systems, such as Species 2000,[317] which led to the decision that closer cooperation would be required. This resulted eventually in the so-called Global Species Information System (GSIS). The objective of the GSIS is 'gathering and making available information on all known species on earth' to serve 'as a tool for information and awareness raising for the wider public as well as for enhanced scientific cooperation'.[318]

This overview of some of the most relevant monitoring activities and initiatives regarding biodiversity may give the soothing impression that the knowledge acquired on the subject is very extensive indeed. Unfortunately, there are still many unknowns and uncertainties with regard to the state of numerous species and ecosystems. For a start, it is not even known how many species exist on earth today, and species that have not yet been identified will not receive individual protection.[319] The lack of scientific certainty can harm the case for protective measures, especially if major economic interests are involved.

The fact that there is no international panel of experts on biodiversity to oversee and advise on all aspects of biodiversity is seen as a major deficiency by all relevant stakeholders. To fill this gap an initiative was taken by the world's leading biodiversity experts to set up an International Mechanism of Scientific Expertise on Biodiversity (IMoSEB), which plan received political support in 2005 by President Chirac of France. In 2008, it was decided by the international community to combine this initiative with the MA follow-up and to create an Intergovernmental Science-Policy Platform (IPBES), whose mandate would be 'the provisioning of authoritative, independent, credible, inclusive, and internationally peer reviewed policy relevant scientific advice on changes in biodiversity and

ecosystem services and their implications for human well-being at multiple scales'.[320] At the time this study was completed, IPBES had not yet been established.[321]

Examples of available information as well as the latest developments regarding the monitoring of biodiversity have been discussed in this sub-section. Each biodiversity-related convention assessed in this study requires the availability of a specific set of regularly updated data to be able to monitor progress towards the realisation of its objectives. This requirement has led to the benchmark for this element of the Effectiveness Test.

The benchmark regarding this seventh element of the Effectiveness Test is as follows:

For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).

5.8 Element 8: Communication, Education and Public Awareness

The biodiversity-related conventions that are discussed in this study have to be transposed into national legislation and policies by the states that are party to them. Their success depends to a significant extent on public awareness of and support for the issues involved.

The German publicist Triepel wrote that international law is like a field marshal who can only give orders to generals. It is solely through the generals that his orders can reach the troops. If the generals do not transmit them to the soldiers in the field, the battle will be lost.[322]

Although the 'generals' are no longer the only stakeholder that can 'reach the troops', the comparison is still useful. The international conventions that are assessed in this study have been negotiated by government officials on an international level. The public does not usually participate directly in this process. It is primarily the responsibility of the states parties to convey the results and consequences to their citizens.

Direct and professional communication by the states parties with their citizens is of the utmost importance. If this is lacking, avoidable enforcement issues might arise. Legislation and policies that aim to protect biodiversity affect certain groups of people or businesses. For instance, farmers could be required to limit the spreading of slurry, developers might face building restrictions in protected areas, or hunters could be confronted with a ban to shoot certain species. The states' communication efforts should therefore be aimed at creating understanding and support, not only from those who are directly involved, but also from the public at large. People can form a considered opinion if they are familiar with the legislation and policies that have been implemented and their reasons, objectives and consequences. Easy access to relevant information is essential to achieving this.

Although the state agencies are primarily responsible for building public awareness of and support for biodiversity-related legislation and policies, the environmental NGOs have traditionally played a very important role in highlighting environmental issues. Greenpeace International deserves special mention since it has been able to focus public attention on issues such as the killing of threatened species of whales by Japanese whalers, and the unsustainable growth of soybean production in Brazil, which leads to the destruction of rain forests.[323] The scientific community is another stakeholder group involved in creating public awareness of biodiversity-related issues.[324] An apt illustration is the Environmental Performance Index (EPI), which is published biennially by two American universities.[325] The

index shows the environmental performance of individual countries in different categories, including 'biodiversity and habitat', and facilitates comparisons between countries, including those between countries within the same peer group.[326]

Obviously, the media's role should not be underestimated as all stakeholders need broadcasters, newspapers and magazines to get their message across. The internet is a relatively new and very effective means of communicating environmental issues as well. It is the only medium that enables cheap and swift interactive communication with the public.

Communication and information alone, however, will not suffice. People should be educated at an early age about the relationship between nature and human activities to fully appreciate the issues at stake. Public involvement in various projects to protect nature will further encourage awareness and can create public concern and a sense of personal responsibility. As indicated by Victor et al., 'public concern can contribute to the implementation and effectiveness of international agreements' and is therefore 'often the most important factor in determining whether international regimes can be effective'.[327] Information, education and participation are crucial, especially when behavioural change is needed. Moreover, legislation to protect biodiversity about which people are well-informed will obviously be far more useful, both in a preventative and in a corrective sense, to stop harmful activities, than regulations that are relatively obscure.

The actions to create public awareness and support need evaluating to assess their effect on public opinion. An effective way of doing this is through regular surveys. In 2003, the Commission on Education and Communication (CEC) of the IUCN reviewed many of these surveys and some of its findings need mentioning.[328] Firstly, only the developed countries are carrying out regular public awareness surveys regarding the environment; developing countries usually do this irregularly or not at all.[329] Secondly, nature conservation is seen by the public as one of the topics of major public concern, but it does not feature in the top three,[330] and thirdly, terms such as 'biodiversity' and 'sustainability' are remote and too abstract to most people.[331] An Australian survey carried out in 1999 revealed that only 10% of respondents understood the term 'biodiversity'.[332] A 1996 USA survey on the same subject showed similar results.[333] The 2010 EU Eurobarometer survey found that 38% of EU citizens know the meaning of biodiversity, while a majority has heard of the term.[334]

This Eurobarometer survey further revealed that, after the term 'biodiversity' was explained to them, the vast majority of Europeans think that preserving biodiversity is a moral obligation,[335] and that biodiversity loss is a very or fairly serious problem at the national, European and global level.[336] A minority of the respondents feel that they are well-informed about the issue.[337]

Although environmental surveys are less common in developing countries, those that were carried out clearly indicated that the number of environmental groups and the public participation rates within these groups have risen substantially in the last three decades, and that contrary to popular belief environmental protection is not considered a mere luxury in these countries.[338]

Organisations such as the UN, UNEP, the Council of Europe and the EU, as well as environmental NGOs, such as the IUCN, fully subscribe to the importance of the public's involvement in and support for environmental issues, including the protection of biodiversity. Several initiatives have been taken in this area.

The importance of the involvement of the public in environmental matters has for instance been laid down in Principle 10 of the Rio Declaration on Environment and Development and in Chapter 36 of Agenda 21, which deals with the promotion of education, public awareness

and training. Principle 10 reads as follows: 'Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided'.[339]

An important subsequent development is the signing of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, at Aarhus, Denmark on June 25, 1998 under the auspices of the United Nations Economic Commission for Europe (UNECE). The 56 member states of UNECE include the 27 EU member states, the USA, Canada, Turkey and the countries of the former Soviet Union. This convention is known as the Aarhus Convention and entered into force on 30 October 2001.[340]

Forty-four states have currently ratified the Aarhus Convention,[341] which main objective is 'to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being'.[342] The convention consists of three pillars:

— the public should have access to environmental information
— the public should be able to participate in the decision-making process
— the public should have access to justice[343]

When implemented, the measures laid down in the convention will help to increase public awareness and support. Studies have revealed for instance that public participation in the decision-making process not only leads to wider acceptance of state decisions on the environment, but also to better decisions.[344]

At the introduction of the Aarhus Convention the then Secretary-General of the United Nations, Kofi Annan, stated that 'although regional in scope, the significance of the Aarhus Convention is global. It is by far the most impressive elaboration of principle 10 of the Rio Declaration, which stresses the need for citizen's participation in environmental issues and for access to information on the environment held by public authorities. As such it is the most ambitious venture in the area of 'environmental democracy' so far undertaken under the auspices of the United Nations'.[345]

The scope of the Aarhus Convention is intended to go beyond the territories of the states parties. This appears from Article 3, paragraph 7, in which it is stated that 'each Party shall promote the application of the principles of this Convention in international environmental decision-making processes and within the framework of international organizations in matters relating to the environment'. This resulted in 2005 in the adoption by the Meeting of the Parties of the so-called Almaty Guidelines on Promoting the Application of the Principles of the Aarhus Convention in International Forums.[346] The purpose of these guidelines is to strengthen the involvement of the public (including environmental NGOs and other stakeholders) in the activities of the bodies of international environmental treaties. This should lead to greater transparency and accountability of these bodies, including the ones of the biodiversity-related conventions. A Task Force has been established by the Meeting of the Parties of the Aarhus Convention to consult with the

bodies of international environmental treaties on the implementation of the guidelines. At the 2008 Meeting of the Parties, it was decided to extend the mandate of the Task Force for a further period.[347]

As discussed above, activities in respect of communication, education and the creation of public awareness can be of great importance to the effectiveness of a biodiversity-related convention, and this study considers it essential for each of these conventions to have a comprehensive and well-structured Communication, Education and Public Awareness (CEPA) programme in place. As some CEPA experts have put it 'effective use of CEPA requires a planned systematic approach'.[348]

The decision-making bodies of most of the biodiversity-related conventions have acknowledged the importance of CEPA and have adopted some form of international CEPA programme.[349] As Blasco has stated, 'all of [the multilateral environmental agreements] have the same goal: to make people more aware of environmental problems, change behaviour, and generate support for the work that is being done on these issues at the local, national, and international level'.[350] The international CEPA programmes should aim to maximise transparency in relation to the activities of the convention. A comprehensive website is essential in this respect.

The bodies of the conventions might receive assistance in developing their CEPA programmes from the environmental NGOs and other stakeholders. To this end, the IUCN has, for instance, set up a Commission on Education and Communication (CEC) comprising a global network of experts on the subject.[351]

It is not sufficient for a biodiversity-related convention to just have a CEPA programme at the international level. National CEPA activities, as discussed earlier in this sub-section, can add immense value. Each state party therefore needs to prepare and implement a national CEPA programme in line with the biodiversity-related convention's international CEPA programme. As stated in a recent report in relation to national CEPA programmes, 'when we fail to use CEPA, conflicts are more likely, projects can fall into disarray and an organisation's reputation can be damaged'.[352]

The benchmark regarding this eighth element of the Effectiveness Test is as follows:

For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.

The implementation of a national CEPA programme by the vast majority of states will be necessary to make these conventions effective. Since the notion of 'vast majority' is not specific enough, the 'three-quarter' criterion has been chosen as a quantifiable alternative.

5.9 Element 9: Incentives

The conventions to protect biodiversity may include incentives to enhance the effectiveness of the treaty. The decision-making body of a convention can also introduce incentives at a later stage. Incentives should help convince states to become a party to a convention and/or stimulate parties to implement and comply with the convention they have ratified. As

Demmke has put it, 'implementation will be deficient if those who need to implement the policy have no incentives to comply with it'.[353] In relation to biodiversity-related conventions, the following types of incentives can be distinguished:

i. The Financial Resources Incentive

The Executive Secretary of the Biodiversity Convention has stated that 'financial resources are the fuel for the international biodiversity machinery'.[354] As may be inferred from this statement, the financial resources incentive is the most powerful incentive for those parties of a biodiversity-related convention that are developing countries. The areas that are rich in biodiversity are often situated in countries that need financial support to be able to protect them. Most of the biodiversity-related conventions have some financial resources at their disposal for this purpose, but as these funds are limited, additional forms of funding are needed as well. These may be provided by the multilateral institutions, of which the World Bank and the Global Environment Facility are the most relevant,[355] but also on a bilateral basis by the developed countries, the European Union, the environmental NGOs and the private sector.[356] The bodies of a convention can make a difference by offering parties financial support directly or by assisting them in accessing these external funding sources.

ii. The International Assistance Incentive

A convention or its decision-making body may offer its parties international assistance. This could for instance take the form of carrying out specific studies, providing staff training or supplying special equipment. Other important areas of assistance could be the development of environmental law and the strengthening of relevant national institutions such as government bodies, enforcement agencies and the judiciary. Especially the developing countries are often not able to implement a convention without this assistance due to a lack of specific know-how or trained staff.

iii. The Information Incentive

Most biodiversity-related conventions have included a provision on the exchange of information between parties as well as between parties and other stakeholders. Easy access to extensive information regarding the issues relevant to the convention, such as the results of important research or valuable experience, can be very helpful to parties. The available information usually includes scientific and technological data and know-how. International information networks, databanks and clearing-house mechanisms play a crucial role in the transfer of information.[357]

iv. The Cooperation Incentive

A convention or its bodies could also offer its parties an interesting incentive by actively promoting and facilitating technical, scientific or managerial cooperation. This may, for instance, lead to new or more comprehensive contacts between international and national scientific or technical institutions. Furthermore, many issues important for the realisation of the objectives of a convention have cross-border elements and close cooperation with other parties is therefore often crucial.

v. The Technology Transfer Incentive

Much of the existing technology that is relevant to the conservation and sustainable use of biological diversity is normally not available to many of the developing countries. The incentive to provide access to this technology and to facilitate its transfer, which could sometimes be offered by a convention or its bodies, could be of great value to these countries. This is especially the case if the technology is provided under 'fair and most favourable' conditions.[358] The incentive may also include the requirement for the technology to be 'environmentally sound' and/or 'the best available'.[359]

vi. The Economic Incentive

Some of the biodiversity-related conventions, such as CITES, have trade regulating provisions that restrict legal access to the international market for certain natural resources to parties to the convention, and thus create an incentive for states to become a party. The U.S. government has stated that 'the use of trade measures in [multilateral environmental agreements] has been and will continue to be an effective tool for achieving important environmental objectives'.[360]

vii. The Access and Benefit Sharing (ABS) Incentive

The aim of the so-called access and benefit sharing (ABS) incentive is that a country of origin (and party to the convention) gives access to its genetic resources under certain conditions and shares in the benefits arising from the commercial exploitation of these resources by a third party. In practice, this may result in the signing of an ABS agreement under auspices of the convention between the country of origin and a company interested in commercialising the genetic resource.

viii. The Marketing Incentive

The marketing incentive has become increasingly important for both developed and developing countries. Interest in eco-tourism is on the increase, and a country's conservation areas, such as its national parks or world heritage sites, can become international attractions, drawing tourists as well as scientists and conservationists to the country.

The moral duty and pressure that governments of states might feel to become a party to a convention can also be seen as a marketing incentive. The signing of a biodiversity-related convention will usually be considered as a positive act by the state, while not signing the convention might lead to disapproving reactions from many stakeholders, including the state's citizens.

It is essential for the effectiveness of a biodiversity-related convention that meaningful incentives are offered to the parties, especially to those that are developing countries. Not all the incentives discussed above may be relevant to each of the five conventions. However, without a solid financial resources incentive, not many developing countries could realistically be expected to fully implement and comply with the measures laid down in any of these conventions. This is in line with Wettestad's assumption that 'in international settings with a significant number of economically and administratively weak parties,

regimes which succeed in establishing a well-functioning, compliance-supporting financial mechanism tend to be more effective than regimes which fail in this regard'.[361] This study therefore considers it to be imperative that a convention or its decision-making body offers a significant financial incentive to its parties that are developing countries.

The benchmark regarding this ninth element of the Effectiveness Test is as follows:

For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.

5.10 Element 10: Compliance and Enforcement

In relation to compliance with and enforcement of a biodiversity-related convention, a state party faces different types of obligations, which need to be supervised by the bodies of the convention. The issues relevant to this sub-section can be divided into three main groupings. Firstly, the party has the obligation to ensure that the national laws, regulations, policies and other measures related to the implementation of the convention are observed and that adequate sanctions are available where necessary. Obviously, the capability to enforce the legislation at the national level will strongly enhance the effectiveness of a convention. Secondly, a state party has to comply with supervisory measures introduced by the convention or its decision-making body. For instance, most biodiversity-related international legislation requires some form of reporting from the states parties. In the previous sub-section, the focus has been on positive measures to tempt states to become parties to a biodiversity-related convention and to implement and comply with the legislation. In this sub-section, the available options to put pressure on states parties to comply with this legislation will be looked at in more detail. Thirdly, the supervisory role of the secretariat is crucial. It should closely monitor compliance and report its findings to the decision-making body. This sub-section will finish off with some general remarks on the international dispute settlement procedures. Although the possibility to call on one or more of these procedures is sometimes included in the conventions assessed in this study, this will not be taken into account in the application of the Effectiveness Test as this option has no practical significance.

i. Compliance with and Enforcement of Biodiversity-Related Conventions at the National Level

As already mentioned in sub-section 4.1, compliance with and enforcement of an international biodiversity-related convention by the parties is one of the factors determining the convention's effectiveness. As Bodansky observes, non-compliance by the parties not only harms the environment, but also 'erodes the capacity for international cooperation more generally by undermining trust'.[362]

In this study, UNEP's definitions of national compliance and enforcement will be used. National Compliance is understood to mean the state of conformity with obligations, imposed by a state, its competent authorities and agencies on the regulated community, whether directly or through conditions and requirements in permits, licences and authorisations, in implementing multilateral environmental agreements.[363] By Enforcement

is meant the range of procedures and actions employed by a state, its competent authorities and agencies to ensure that organisations and persons, potentially failing to comply with environmental laws or regulations implementing multilateral environmental agreements, can be brought or returned into compliance and/or punished through civil, administrative or criminal action.[364]

It is widely recognised that it is less difficult to establish whether an international environmental agreement has been implemented than it is to determine whether the regulations related to the implementation are being observed.[365] As will be discussed later in this sub-section, relevant compliance information is to a large extent obtained from national reporting, but other sources of information, such as those provided by environmental NGOs, can also be very important.

It should be noted that the possibilities open to the national NGOs and the citizens of a state party, but also to the bodies of the state themselves to enforce the convention at the national level will strongly determine its effectiveness. Bodansky states on this issue that 'a regime is more likely to be effective if it is able to empower domestic stakeholders'.[366] Several aspects affect the availability of these possibilities. As discussed in sub-section 5.5, the five conventions assessed in this study are non-self-executing treaties, which means that parties need to introduce more specific national (or regional) legislation, regulations or policies to effectively implement these treaties. However, if the measures of a convention are laid down in rather vague wording, using terms such as 'as far as possible and appropriate', 'endeavour' or 'in accordance with its particular conditions and capabilities', they are unlikely to be transposed by the parties into clear and specific national legislation that is easily enforceable at the national level.[367] As Jacobson and Brown Weiss note 'weak legislation can produce weak compliance'.[368] Another issue that needs attention concerns the status of decisions and resolutions agreed upon by the decision-making body of a convention to further its implementation. These decisions and resolutions are usually non-binding and therefore not enforceable at the national level.[369]

Stakeholders seeking to bring a case to court may be denied 'access to justice'. Although it has been laid down in Principle 10 of the Rio Declaration that regarding environmental issues 'effective access to judicial and administrative proceedings, including redress and remedy, shall be provided',[370] many states still apply a restrictive regime based on the principle that environmental NGOs (and sometimes individuals) lack a direct interest. Bodansky and Brunnée have remarked that 'restrictive standing rules are likely the most significant barrier to the implementation of international environmental law by domestic courts'.[371] In sub-section 5.8 of this chapter, the Aarhus Convention was discussed in relation to its aim to increase public awareness. The third pillar of this convention deals with the public's access to justice on environmental matters.[372] Regarding the issue of having a 'sufficient interest', it is stated by the convention that 'non-governmental organizations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest'.[373] The states parties to the Aarhus Convention are thus prevented from denying environmental NGOs access to justice on environmental matters, although the addition that they should meet 'any requirements under national law' might compromise this effect to some extent.

Last but not least, it is important that a state's judiciary as well as its other legal practitioners are familiar with the applicable international environmental legislation. This has also proven to be problematic, both in developing and in developed countries.[374] To address this shortcoming, UNEP took the initiative to organise a global judges symposium

on sustainable development and the role of law, which was held in 2002 in South Africa. Judges from all over the world came together with the objective to increase their knowledge about and become more active on environmental issues. The final statement of the symposium, better known as the Johannesburg Principles on the Role of Law and Sustainable Development, lays down that 'an independent Judiciary and judicial process is vital for the implementation, development and enforcement of environmental law, and that members of the Judiciary, as well as those contributing to the judicial process at the national, regional and global levels, are crucial partners for promoting compliance with, and the implementation and enforcement of, international and national environmental law'.[375] Another interesting aspect of the Johannesburg Principles concerns the judges' acknowledgement 'that the deficiency in the knowledge, relevant skills and information in regard to environmental law is one of the principle causes that contribute to the lack of effective implementation, development and enforcement of environmental law' and that 'there is an urgent need to strengthen the capacity of judges, prosecutors, legislators and all persons who play a critical role at national level in the process of implementation, development and enforcement of environmental law, including multilateral environmental agreements (MEAs), especially through the judicial process'.[376] Since this symposium, UNEP has continued to organise many sub-regional meetings of judges, often resulting in the drafting of regional capacity building programmes or the establishment of regional judges committees on environmental law.

Despite these complications, some interesting case law is emerging on national and (to a lesser extent) regional level derived from the biodiversity-related conventions.[377]

The secretariats of the conventions should be well-informed about the enforcement of this legislation at the national level. States parties have to include this information in their national reports, but other sources such as the environmental NGOs may provide it as well.

ii. Supervisory Measures regarding the Biodiversity-Related Conventions at the International Level

It is of great importance that the decision-making body of an international biodiversity-related convention has some supervisory measures at its disposal to ensure that it receives adequate information from the parties concerning the implementation of and compliance with a convention at the national level, and to compel parties to comply with the convention's obligations.

The texts of recent international environmental conventions usually contain one or more supervision articles. The decision-making body of a convention can introduce further supervisory measures. Various forms of supervision have been developed over the years, which can be divided into four broad categories: 1. Periodic and other reporting by parties; 2. Fact-finding and research by treaty institutions or others; 3. Inspection by treaty institutions; 4. Non-compliance procedures.[378]

The requirement under a convention that a party should report progress to a treaty institution, usually the secretariat, is quite common. The form and frequency of reporting may vary from treaty to treaty. Reporting is essential to enable institutions to assess advancements made regarding matters affecting the convention. An additional outcome could be that states increase their efforts to comply with the treaty to avoid embarrassment. Publication of the reports could further strengthen this effect. There is, however, a downside to self-reporting by parties. Reports may for instance be incomplete

and imprecise to hide non-compliance.[379] The experiences with many states are disappointing in this regard.[380]

Most biodiversity-related conventions assessed in this study have included a reporting requirement in their texts. Regular comprehensive reporting allows the secretariat, at least to some extent, to monitor implementation and compliance by the parties. This type of reporting should be standardised in order to facilitate comparing a party's report with previous versions as well as with reports of other parties. Other forms of reporting may also be required, for instance on the consequences of unforeseen occurrences.

In recent years, the decision-making bodies of the biodiversity-related conventions have initiated the establishment of the Biodiversity Liaison Group in which the secretariats of the five biodiversity-related conventions that are the subject of this study meet on a regular basis to try to improve coordination and exchange of information.[381] One of the indicated areas of cooperation is the streamlining of national reporting by the parties.[382]

The second category, fact-finding and research by treaty institutions or others, goes a step further, although it is not primarily intended to reveal infringements. The main purpose is to collect data and information relevant to monitoring the treaty. This could be the responsibility of the scientific body of a convention. There are also monitoring institutions not directly linked to a specific treaty that collect relevant environmental information. The United Nations System-wide Earthwatch mechanism and TRAFFIC are two examples. The UN System-wide Earthwatch mechanism has been set up by UNEP 'to coordinate, harmonize and catalyze environmental observation activities among all UN agencies for integrated assessment purposes'.[383] TRAFFIC works in close cooperation with CITES, which will be discussed in more detail in Chapter VI. In view of the fact that these institutions source their data independently, their contributions must be seen as valuable additions to the reporting requirement.

Inspection by international institutions or treaty bodies is the third category. This monitoring mechanism is more intrusive than the first two. There are only a few environmental treaties that have this type of monitoring available. The International Whaling Commission, which was established by the 1946 International Whaling Convention, can appoint international observers who will report their findings to it.[384] However, these observers are nominated and paid by member nations that are willing to participate in the scheme, and their independence could therefore be questionable.[385]

A preferable form of independent inspection can be found in the 1991 Protocol on Environmental Protection to the Antarctic Treaty of 1959.[386] Article 14 of the protocol provides for observers who are selected by and acting on behalf of the Antarctic Treaty Consultative Parties.[387]

The on-the-spot appraisal that can be carried out under the case-file system of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) could also be placed in this category.[388] The appraisal procedure has been laid down in the rules of procedure of the convention. If an on-the-spot appraisal is deemed necessary, the Standing Committee will request an expert to carry out the examination. The expert will be accompanied by a member of the secretariat and a representative of the party concerned and will report his or her findings to the decision-making body of the convention.[389]

The strongest of the four compliance mechanisms is the so-called non-compliance procedure. It usually has the following characteristics: (1) it reduces the economic benefits from non-compliance and facilitates compliance in cases where the non-compliance is

caused by a lack of capacity; (2) an internal multilateral body for non-compliance cases has been created; (3) access to the procedure is broader than the traditional dispute settlement mechanisms, since the procedure can usually be initiated by one or more parties, the secretariat of the convention or the non-complying party itself; (4) the non-compliance procedure is neither consent-based, nor is it necessary to have an 'injured state'; (5) it aims to continue the participation of the party in the treaty by returning the party to compliance with the treaty.[390] The non-compliance procedure may include one or more sanctions, such as trade restrictions, the blocking of funds and/or the removal of the status of certain sites, to add teeth to the procedure. Furthermore, the procedure needs to be transparent. The information in relation to the non-compliance of a party should be in the public domain in order to create international accountability and to enable all relevant stakeholders to respond.[391]

A good example is the non-compliance procedure adopted by the Meeting of the Parties of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), a protocol to the Vienna Convention for the Protection of the Ozone Layer of 1985.[392] This non-compliance procedure, which is based on Article 8 of the Montreal Protocol, works as follows.[393] As with most environmental treaties, each party has to prepare its periodic report for the Secretariat. The Secretariat then has to decide, based on this and other information, whether a party complies with the convention and the protocol. If the Secretariat concludes that a party does not comply, it may initiate the procedure by presenting a report about the case to the Meeting of the Parties and the Implementation Committee (a permanent body consisting of representatives of a number of contracting states, usually meeting twice a year).[394] The procedure can also be started in case a party formally expresses and documents reservations concerning another party's implementation of its obligations and the Secretariat passes these reservations on to the Implementation Committee.[395] A third starting point for the procedure is when a party reports to the Implementation Committee, through the Secretariat, that 'despite having made its best bona fide efforts, it is unable to comply fully with its obligations'.[396]

The next step in the procedure is that the Implementation Committee will discuss the report of the Secretariat (option 1), or the complaining party's reservations (option 2), or the submission of the non-complying party (option 3). It may invite the complaining party or the party that reports its own non-compliance. The Committee then prepares a report for the Meeting of the Parties about the case.[397] The Meeting of the Parties will subsequently 'decide upon and call for steps to bring about full compliance with the Protocol'.[398] Possible measures it could take are: (a) giving appropriate assistance, such as assistance to collect and report data, technical assistance, technology transfer, financial assistance, information transfer and training; (b) issuing cautions; (c) suspending specific rights and privileges under the Protocol, whether or not subject to time limits, including those regarding industrial rationalisation, production, consumption, trade, transfer of technology, the financial mechanism and institutional arrangements.[399] The possibility to cut off the GEF and other funding in cases of non-compliance provides the procedure with a forceful sanction.[400] Since 1990, the non-compliance procedure of the Montreal Protocol has been invoked many times, mostly initiated by the Secretariat (option 1) and only occasionally by a non-complying party (option 3).[401] The procedure has usually brought about compliance by the non-complying party, which proves that the non-compliance procedure can be a very effective instrument.[402]

Other examples of environmental conventions and protocols that have established similar non-compliance procedures are the 1992 Framework Convention on Climate Change,[403] the 1994 Protocol on Further Reduction of Sulphur Emissions,[404] and the 1994 UN Convention to Combat Desertification.[405]

It is not a necessary condition for a non-compliance procedure to be provided for in the convention text or protocol. It could, for instance, be adopted by the decision-making body of a convention even though no reference to such procedure has been included in the legislation itself. Examples of non-compliance procedures that came about in this way can also be found amongst the biodiversity-related conventions.[406]

In this study, an active non-compliance procedure is considered to be a very useful tool to bring about the implementation of and compliance with the conventions. The word 'active' refers to the fact that the procedure should actually be used in appropriate cases. The availability of tough sanctions in serious cases of non-compliance and a fully transparent procedure will further enhance the strength of this mechanism.

With the exception of fact finding and research by treaty institutions and others, the role of environmental and other NGOs as well as individuals in relation to supervision is usually quite limited. However, they do provide the bodies of the biodiversity-related conventions and the parties with a wealth of useful data and may act as whistle blowers in certain cases.

iii. Supervising Compliance and Enforcement by the Secretariat of the Convention

The importance of the supervising role of the secretariat has also been underlined in sub-section 4.1 (under Element 5) and in sub-section 5.5 of this chapter in relation to the implementation element. As already brought up in sub-section 4.1 under Element 10, this responsibility should, however, be extended to cover compliance with and enforcement of a convention by the parties as well. The secretariat is the obvious body to actively supervise the timely submission of the national reports by the parties. Next, it should scrutinise these reports, verify the data received, synthesise it into a comprehensive report and make it available on a regular basis to the decision-making body, the stakeholders and the general public. It should take action where necessary. Depending on the specific options available, this could include collecting relevant data, arranging inspections, initiating non-compliance procedures and implementing sanctions. Furthermore, the secretariat should be informed about the parties' enforcement of the convention at the national level and be aware of any relevant case law involving the convention. If extra resources are required to carry out these tasks, the decision-making body should make the necessary funds available as a matter of priority.[407] Additional support could be offered by international institutions such as UNEP, as well as by the many international and national NGOs. As the secretariat functions under the authority of the decision-making body, it will only be able to carry out these and other responsibilities with the full backing of this institution. Obviously, information acquired in this supervising role as well as the secretariat's assessment thereof should be made publicly available.

iv. International Dispute Settlement Procedures

Dispute settlement procedures deal with disputes between states. The basis for these procedures can be found in Article 33 of the UN Charter, which lays down the principle that disputes between states must be settled peacefully.[408] In relation to international treaties,

disputes between states generally concern the interpretation or application of a convention. Although most biodiversity-related treaties have dispute settlement provisions included, these procedures have hardly ever, if at all, been used. The main reason for this is probably that states do not consider issues of biodiversity sufficiently important to initiate a dispute procedure on with another state. Furthermore, these treaties are multilateral in character and supervision by decision-making bodies is better suited to solve any disputes than inter-state procedures, especially since it is almost impossible for third parties (including other states) to intervene in the latter. In line with this, Brown Weiss questions 'whether the strong emphasis in environmental treaty negotiations on including formal binding dispute-resolution mechanisms is always useful'.[409] As a consequence, dispute settlement procedures will not be taken into account in the Effectiveness Test and will only be briefly discussed in this and the following chapters.[410]

For the settlement of disputes, diplomatic means are usually tried first. If these are not successful, legal means are available to find a solution to the conflict. The diplomatic means are negotiation, inquiry, good offices, mediation and conciliation; the legal means judicial settlement and arbitration.

Negotiation can be described as diplomatic bargaining. Third parties are not involved, so it is left completely to the parties to solve their dispute. The other diplomatic means do bring in a third entity. In the case of an inquiry, an independent commission is set up to establish the facts in relation to the dispute. However, parties are free to accept or reject the findings of this commission.

The means of good offices goes one step further. In this case, a third state or international body tries to persuade the parties to negotiate a settlement. The third party plays an even more active role in the case of mediation, because it actually participates in the negotiations between the disputing parties and assists in finding solutions. Conciliation comes closest to a judicial settlement since the third party will consider the factual and legal elements of the case and will subsequently propose a settlement. This proposal is not binding upon the parties, however.

Parties can choose to use one of the available legal means if the diplomatic route has failed, but this requires the consent of both parties to abide by the decision of the court. If both parties do consent, the decision of the arbitral court or the International Court of Justice (ICJ) is legally binding on them.

One form of legal means is international arbitration. Article 37 of the 1907 Hague Convention on the Pacific Settlement of International Disputes describes international arbitration as having 'for its object the settlement of disputes between states by judges of their own choice and on the basis of respect for the law. Recourse to arbitration implies an engagement to submit in good faith to the award'.[411]

Parties can also choose to engage the ICJ to settle their legal dispute. The main difference with international arbitration is that parties cannot choose the judges, since the court is composed of 15 judges who are appointed for a period of nine years. The effect of engaging the ICJ is that international law can develop more logically and harmoniously. Disputing states can accept the competence of the ICJ in different ways. Firstly, they can conclude a special agreement to bring their case before the ICJ. Secondly, an international treaty that the disputing states have both signed might include a clause that in the event of disagreement between the parties over its interpretation or application, one of them may refer the dispute to the ICJ. Thirdly, both states might have agreed to the so-called optional

clause, which means that they accept the compulsory jurisdiction of the ICJ without the need for a special agreement.[412]

The ICJ has developed a fourth way of having parties consent to its jurisdiction: expressed or implied consent. This is the so-called *forum prorogatum*, which means that a respondent state (a state against whom proceedings have been instituted before the ICJ) that has not previously accepted the ICJ's jurisdiction, but that has shown its acceptance of the ICJ's jurisdiction by some other act (e.g. appearing before the ICJ to argue the case on its merits), has thereby demonstrated its acceptance of the ICJ's jurisdiction.[413]

In 1993, the ICJ set up the Chamber for Environmental Matters to be able to deal efficiently with any environmental cases submitted to it. Besides the fact that cases involving international environmental issues are rare, another probably more important reason for the limited activity of this chamber is that most cases involve other areas of international law as well, leading to proceedings before the full court.[414]

In a procedure open only to international organisations, the ICJ can also give advisory opinions. At present, the five organs of the UN and 16 of its specialised agencies can avail of this service.[415] UNEP and the UNCSD are not included in this group. Since 1946, the ICJ has given only 26 advisory opinions.[416] Advisory opinions are not binding, unless certain instruments or regulations have provided otherwise in advance.

The dispute settlement procedures leave little room for participation of NGOs and individuals. Diplomatic means to settle a dispute are usually undertaken behind closed doors, while it is only states that can be a party to proceedings before the ICJ.[417] Besides, the ICJ's advisory opinions are solely available to UN-related international organisations.[418] An exception is arbitration based on international law, since international organisations, NGOs and companies can be a party.[419]

The benchmark regarding this tenth element of the Effectiveness Test, which consists of two components, is as follows:

Benchmark on Compliance with and Enforcement of the Convention by the Parties: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.*

The compliance and enforcement by the vast majority of parties will be necessary to make these conventions effective. Since the notion 'vast majority' is not specific enough, the 'three-quarter' criterion has been chosen as a quantifiable alternative.

Benchmark on the Compliance Mechanisms of the Convention: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

The compliance with the reporting requirements by the vast majority of parties will be necessary to make these conventions effective. Since the notion 'vast majority' is not specific enough, the 'three-quarter' criterion has been chosen as a quantifiable alternative.

6. Conclusion

This chapter forms the backbone of this study. It describes and explains the ins and outs of the Effectiveness Test. This test will be used in the next chapters to assess the effectiveness of the five most important international biodiversity-related conventions: the Ramsar Convention (Chapter IV), the World Heritage Convention (Chapter V), CITES (Chapter VI), the CMS (Chapter VII) and the CBD (Chapter VIII).

In section 2 of this chapter, some influential studies on the concept of effectiveness are explored, while section 3 establishes the definition of effectiveness that forms the starting point for this study: 'an international biodiversity-related international convention is considered to be effective when it has the potential to eliminate or substantially ameliorate the problem that led to its creation'.

Section 4 clarifies the working of the Effectiveness Test and introduces and substantiates the ten elements and their respective benchmarks that form the basis of the test. It subsequently explains that the assessment of a convention will lead to either a 'satisfactory' or an 'unsatisfactory' outcome per element and that a convention needs to score a 'satisfactory' result on all ten elements to be considered 'effective'. In section 5, the ten elements and their benchmarks are discussed in some detail.

To recapitulate, the following elements and benchmarks underpin the Effectiveness Test:

Element 1: Parties
Benchmark: For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.

Element 2: Institutional Framework
Benchmark: For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.

Element 3: Environmental NGOs and Other Stakeholder Groups
Benchmark: For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.

Element 4: Objectives, Measures and Timing
Benchmark: For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the

problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.

Element 5: Implementation
Benchmark: For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.

Element 6: Reservations, Derogations and Other Exceptions
Benchmark: For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).

Element 7: Monitoring
Benchmark: For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).

Element 8: Communication, Education and Public Awareness (CEPA)
Benchmark: For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.

Element 9: Incentives
Benchmark: For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.

Element 10: Compliance and Enforcement
Benchmark 1: For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.

Benchmark 2: For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.

In the next chapters, the five international biodiversity-related conventions will be assessed on the basis of the Effectiveness Test. Following an introduction in the first section of each of these chapters, a convention is examined in the second section by using the ten elements of the Effectiveness Test. This second section consists of ten sub-sections, one for each element. At the end of each sub-section, the performance of the convention will be evaluated against the benchmark, which will lead to either a 'satisfactory' or an 'unsatisfactory' score on that element. The final verdict on a convention will then be presented in the third and concluding section of the chapter.

[1] Bowman M., 'International Treaties and the Global Protection of Birds: Part II' (1999) 11 *Journal of Environmental Law* 2, 300.
[2] Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 2.
[3] See TNS NIPO press release of 29 June 2005: 'Europeanen maken zich grote zorgen over milieu: Meerderheid Europeanen bang dat mondiale ramp nodig is voordat echt actie wordt ondernomen om milieuproblemen op the lossen'.
[4] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992).
[5] See Chapter II, sub-section 4.1.
[6] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992).
[7] Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998).
[8] Jacobson H. and Brown Weiss E. , 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 4.
[9] Ibid., 6.
[10] See section 4.
[11] Victor D., Raustiala K., Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998).
[12] See Victor D., Raustiala K., Skolnikoff E., 'Introduction and Overview' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 1.
[13] See Raustiala K. and Victor D., 'Conclusions' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 680.
[14] Ibid., 685.
[15] Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999).
[16] Ibid., 7.
[17] Ibid., 13.
[18] Ibid., 38.
[19] Ibid., 233.
[20] Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999).
[21] Young O. and Levy M., 'The Effectiveness of International Environmental Regimes' in Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999) 3.
[22] Ibid., 21.
[23] Young O., 'Regime Effectiveness: Taking Stock' in Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999) 249.
[24] Ibid., 259.
[25] See Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 115.
[26] Miles E. et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002).
[27] See Underdal A., 'One Question, Two Answers' in Miles et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) 10.
[28] Ibid., 6-7.
[29] Ibid., 11.
[30] Ibid., 11.
[31] Ibid., 13.
[32] One regime in the latter category is CITES.
[33] Underdal A., 'Conclusions: Patterns of Regime Effectiveness' in Miles et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) 456-458.
[34] Underdal A., 'Methods of Analysis' in Miles et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) 57.

[35] See Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 97.
[36] Young O., 'Determining Regime Effectiveness: A Commentary on the Oslo-Potsdam Solution' (2003) 3:3 *Global Environmental Politics* 99.
[37] See Chapter I for more information on the causes of the decline of biodiversity.
[38] CBD, Article 1.
[39] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992); and Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998).
[40] Young O., *International Governance* (New York, 1994).
[41] See Young O. and Levy M., 'The Effectiveness of International Environmental Regimes' in Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999) 3.
[42] Ibid., 6.
[43] Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998).
[44] Victor D., Raustiala K., and Skolnikoff E., 'Introduction and Overview' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998), 6.
[45] See Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 13; and Underdal A., 'One Question, Two Answers' in Miles E. et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) 8.
[46] Underdal A., 'One Question, Two Answers' in Miles E. et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) 11.
[47] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 253.
[48] The term effectiveness was not defined in this study.
[49] Young O. and Levy M., 'The Effectiveness of International Environmental Regimes' in Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999) 4.
[50] Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999); and Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998).
[51] See Underdal A., 'One Question, Two Answers' in Miles E. et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) 3.
[52] See Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 254.
[53] Ibid., 255.
[54] See for instance Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 9.
[55] See for instance Marauhn T., 'Changing Role of the State' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 746.
[56] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 5.
[57] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H., *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 10.
[58] See Miles E., 'Preface' in Miles E. et al., *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002) xiii.
[59] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 263.
[60] See Chapter II, sub-section 2.2.
[61] See sub-section 5.2 of this chapter for more details.
[62] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 7.
[63] Ulfstein G., 'Treaty Bodies' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 881.
[64] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 265.

[65] Birnie P., Boyle A., Redgwell C., *International Law & the Environment* (Oxford, 2009) 85.
[66] Brown Weiss E., 'The Five International Treaties: A Living History' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 162.
[67] United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 7.
[68] Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 151.
[69] Spiro P., 'Non-Governmental Organizations and Civil Society' in Bodansky D., Brunnée J. and, Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 770.
[70] Victor D., Raustiala K., and Skolnikoff E., 'Introduction and Overview' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 21.
[71] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 263.
[72] Ardia D., 'Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment' (1998) 19:497 *Michigan Journal of International Law* 559.
[73] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 7, 8 and 10.
[74] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 16.
[75] Birnie P., Boyle A., Redgwell C., *International Law & the Environment* (Oxford, 2009) 100.
[76] Young O., 'Regime Effectiveness: Taking Stock' in Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999) 274.
[77] Gillespie A., 'Facilitating and Controlling Civil Society in International Environmental Law' (2006) 15:3 *RECIEL* 327.
[78] Birnie P., Boyle A., Redgwell C., *International Law & the Environment* (Oxford, 2009) 99.
[79] Andresen S. and Skjærseth J., 'Science and Technology: From Agenda Setting to Implementation' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 200.
[80] Gehring T., 'Treaty-Making and Treaty Evolution' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 483.
[81] Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 139.
[82] Ulfstein G., 'Treaty Bodies' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 887.
[83] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 7.
[84] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements* (Cambridge, 1992) 25.
[85] Ratner S., 'Business' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 821.
[86] Levy D. and Newell P., 'Oceans Apart? Business Responses to Global Environmental Issues in Europe and the United States' (2000) 42:9 *Environment* 9.
[87] Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 121.
[88] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 4.
[89] Sands P., *Principles of International Environmental Law* (Cambridge, 2003) 616.
[90] See sub-section 5.4 for more details.
[91] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 6.
[92] Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 9.
[93] Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 125.

[94] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 264.
[95] See Dernbach J., 'Targets, Timetables, and Effective Implementing Mechanisms: Necessary Building Blocks for Sustainable Development' (2005) 6:1 *Sustainable Development Law & Policy* 46.
[96] See for instance Everaert P., 'Emotions, Tempo and Timing in Managing People' in Hesselbein F., Goldsmith M., Beckhard R. (Eds.), *The Organization of the Future* (Drucker Foundation Future Series, San Francisco, 1997) 275.
[97] From UNEP's Guidelines on Compliance With and Enforcement Of Multilateral Environmental Agreements, Section C 'Definitions' (UNEP/GCSS.VII/4/Add.2, 15 February 2002) available on www.unep.org.
[98] Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998).
[99] Victor D., Raustiala K., and Skolnikoff E., 'Introduction and Overview' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 1, 2.
[100] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 3.
[101] Ibid., 6.
[102] Redgwell C., 'National Implementation' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 923.
[103] Bowman M., Davies P. and, Redgwell C., *Lyster's International Wildlife Law* (Cambridge, 2010) 45.
[104] Brown Weiss E., 'The Five International Treaties: A Living History' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 162.
[105] Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 26-28.
[106] Raustiala K. and Victor D., 'Conclusions' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 680.
[107] United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 17.
[108] Ardia D., 'Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment' (1998) 19:497 *Michigan Journal of International Law* 512.
[109] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 4.
[110] Klabbers J., 'On Human Rights Treaties, Contractual Conceptions and Reservations' in Ziemele I. (Ed.), *Reservations to Human Rights Treaties and the Vienna Convention Regime* (Leiden, 2004) 2.
[111] Ardia D., 'Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment' (1998) 19:497 *Michigan Journal of International Law* 509.
[112] See United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 11.
[113] Jasanoff S., 'Contingent Knowledge: Implications for Implementation and Compliance' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 63.
[114] United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 6.
[115] Raustiala K. and Victor D., 'Conclusions' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 680.
[116] Martin-Mehers G., Calvo S., Auchincloss E., Goldstein W., *Achieving Environmental Objectives: The role and value of Communication, Education, Participation and Awareness (CEPA) in Conventions and Agreements in Europe* (IUCN CEC, Gland, 2004) 14.
[117] Ibid., vii.
[118] Ibid., 15.
[119] Victor D., Raustiala K., and Skolnikoff E., 'Introduction and Overview' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 13.

[120] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 10.

[121] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 25.

[122] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 5.

[123] Chayes A., Handler Chayes A., and Mitchell R., 'Managing Compliance: A Comparative Perspective' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 52.

[124] Boisson de Chazournes L., 'Technical and Financial Assistance' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 948.

[125] Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 126, 127.

[126] United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 9.

[127] See www.cbd.int/financial/sources.shtml.

[128] From UNEP's Guidelines for National Enforcement, and International Cooperation in Combating Violations, of Laws Implementing Multilateral Environmental Agreements, Section C 'Definitions'.

[129] Ibid.

[130] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 26.

[131] Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 1.

[132] From UNEP's Guidelines on Compliance with and Enforcement of Multilateral Environmental Agreements, paragraph 5.

[133] Ibid., paragraph 35.

[134] Ibid, paragraph 9(a).

[135] Birnie P., Boyle A., and Redgwell C., *International Law & the Environment* (Oxford, 2009) 242.

[136] Cassese A., *International Law* (Oxford, 2005) 494.

[137] Victor D., Raustiala K., and Skolnikoff E., 'Systems for Implementation Review' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 50.

[138] Chayes A., Handler Chayes A., and Mitchell R., 'Managing Compliance: A Comparative Perspective' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 46.

[139] Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992) 6.

[140] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 239-240, 265.

[141] United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 12.

[142] Brown Weiss E., 'The Five International Treaties: A Living History' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 161.

[143] Klabbers J., 'Compliance Procedures' in Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007) 1008.

[144] Potzold C., *Multilateral Environmental Agreements: Innovative International Compliance Procedures* (2009) Paper submitted to the University of British Columbia Conference on Multilateral Environmental Agreements: contributions to global environmental governance, 6 March 2009, 14; and Sarma M., *Compliance with the Montreal Protocol* (2005) Paper submitted to the Seventh International Conference on Environmental Compliance and Enforcement, INECE, 9-15 April 2005.

[145] Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 247.

[146] See sub-section 4.5 for references to commentators discussing the importance of this factor in relation to the effectiveness of international environmental agreements.

147 Verschuuren J. and Van Gestel R., 'Conclusions. A Conditional Yes to *Ex Ante* Evaluation of Legislation' in Verschuuren J. (Ed.), *The Impact of Legislation: A Critical Analysis of Ex Ante Evaluation* (Leiden, 2009) 263.

148 Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 259.

149 Young O. and Levy M., 'The Effectiveness of International Environmental Regimes' in Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999) 4.

150 Ibid.

151 From: Osborn's Concise Law Dictionary, Eighth Edition (London, 1993).

152 See UN Treaty Reference Guide available on http://untreaty.un.org/English/guide.asp.

153 Ibid.; definition UN Treaty Reference Guide: The act whereby a state accepts the offer or the opportunity to become a party to a treaty already negotiated and signed by other states.

154 Ibid.; definition UN Treaty Reference Guide: Instruments used by states instead of ratification when, at the national level, constitutional law does not require the treaty to be ratified by the head of state.

155 See www.ramsar.org (accessed 31 December 2009).

156 See www.cbd.int (accessed 31 December 2009).

157 See www.un.org (accessed 5 February 2010).

158 See for instance http://unstats.un.org/unsd/methods/m49/m49regin.htm#developed and http://stats.oecd.org/glossary/detail.asp?ID=6326 (accessed 12 March 2010).

159 See www.oecd.org; the 30 member states are: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

160 Examples are: Andorra, Israel, Latvia, Liechtenstein, Lithuania, Malta, Monaco, Russia, San Marino, Slovenia, South Africa.

161 See http://hdr.undp.org/en/statistics.

162 See www.g77.org (accessed 13 March 2010).

163 See www.worldbank.org/licus.

164 See for instance Department for International Development, *Why we need to work more effectively in fragile states* (London, 2005) 7.

165 Esty D. et al., *2008 Environmental Performance Index* (Newhaven, 2008) Yale Center for Environmental Law and Policy; the report is available on http://epi.yale.edu.

166 Ibid., 10; of the ten best performers, eight are developed countries.

167 Ibid., 82.

168 Ibid., 9, Policy Conclusions.

169 Especially the 15 pre-accession member states.

170 See for instance Andresen S. and Hey E., 'The Effectiveness and Legitimacy of International Environmental Institutions' (2005) 5 *International Environmental Agreements* 218.

171 See also Greenpeace, 'Who To Blame Ten Years After Rio? The Role of the USA, Canada, and Australia Undermining The Rio Agreements' (January, 2002).

172 See Chapter II, sub-section 2.2.

173 See for instance Bowman M., 'International Treaties and the Global Protection of Birds: Part I' (1999) 11:1 *Journal of Environmental Law* 93.

174 An exception is the World Heritage Convention. Its decision-making body is the World Heritage Committee, which consists of twenty-one parties of which one-third is replaced every two years.

175 See for an extensive article on this subject Camenzuli L., *The development of international environmental law at the Multilateral Environmental Agreements' Conference of the Parties and its validity* (2008).

176 See for instance Birnie P., Boyle A., and Redgwell C., *International Law & the Environment* (Oxford, 2009) 85.

177 See Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 93; Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 26.

178 See Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 12.

179 Ibid., 39.

180 See for instance Gillespie A., 'Facilitating and Controlling Civil Society in International Environmental Law' (2006) 15 *RECIEL* 327; Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 22.

181 It was established in 1948.
182 See www.iucn.org.
183 Ibid., (accessed 15 March 2010).
184 See www.panda.org (accessed 15 March 2010).
185 Ibid.
186 See www.birdlife.org (accessed 15 March 2010).
187 Ibid.
188 See www.wetlands.org (accessed 15 March 2010).
189 For Europe: BirdLife International, *Important Bird Areas and Potential Ramsar Sites in Europe* (Wageningen, 2001).
190 See for instance Epiney A., 'The Role of NGOs in the Process of Ensuring Compliance with MEAs' in Beyerlin U., Stoll P. & Wolfrum R. (Eds.), *Ensuring Compliance with Multilateral Environmental Agreements* (Leiden, 2006).
191 See for more information on this subject Gillespie A., 'Facilitating and Controlling Civil Society in International Environmental Law' (2006) 15:3 *RECIEL* 327.
192 See for more information www.iubs.org.
193 Same abbreviation.
194 See www.icsu.org.
195 The other three programmes are the International Geosphere-Biosphere Programme (IGBP), the World Climate Research Programme (WCRP) and the International Human Dimensions Programme on Global Environmental Change (IHDP).
196 See www.diversitas-international.org.
197 See Chapter I, section 1 and sub-section 5.7 of this chapter.
198 See www.biodiv.org/cooperation/related-conventions.
199 See Chapter II, sub-section 3.2.
200 See Chapter II, sub-section 4.2.
201 See Chapter II, sub-section 4.2.
202 See also Chapter II, sub-section 3.1.
203 See UNEP, Organization Profile, page 2, available on the website www.unep.org (accessed 17 March 2010).
204 Ibid., page 18.
205 See for more information www.unep-wcmc.org and www.wcmc.org.uk/summary.htm.
206 See www.unesco.org.
207 See for more information www.fao.org.
208 See www.undp.org.
209 The other three are the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA) and the International Centre of the Settlement of Investment Disputes.
210 See for more detailed information www.worldbank.org (accessed 19 March 2010).
211 See Sands P., *Principles of international environmental law* (Cambridge, 2003) 1026.
212 See The International Bank for Reconstruction and Development/The World Bank, *Biodiversity, Climate Change, and Adaptation: Nature-Based Solutions from the World Bank Portfolio* (Washington, 2008).
213 Resolution No. 91-5 of the Executive Directors of the World Bank, November 1991.
214 The other focal areas are climate change, international waters, the ozone layer, land degradation and persistent organic pollutants; see www.thegef.org (accessed 22 March 2010).
215 See for more information www.thegef.org.
216 See www.wto.org (accessed 22 March 2010).
217 See for example Cassese A., *International Law* (Oxford, 2005) 291.
218 General Agreement on Tariffs and Trade (GATT), Article XX (b) and (g).
219 Two WTO cases illustrate this development: the *Tuna-Dolphin* case (*Mexico v US – Restrictions on Imports of Tuna*, 33 I.L.M. (1994), 839, par. 5.29) and the *Shrimps-Turtles* case (*India, Pakistan and Thailand v US – Import Prohibition of Certain Shrimp and Shrimp Products,* Report of the Panel, WT/DS58/R (1998), par.50 and Report of the Appellate Body, WT/DS58/AB/R (1998), at 68-9).
220 Doha Ministerial Declaration of 14 November 2001.
221 See EC Treaty, Article 2.
222 See Broder J. and Mouawad J., 'Energy Firms Find No Unity on Climate Bill' (The New York Times, 19 October 2009).

[223] Greenpeace actions against Shell regarding the proposed sinking of the Brent Spar oil platform pushed it to adjust its corporate position on environmental issues.
[224] See www.shell.com (accessed 22 March 2010).
[225] Ibid.
[226] See www.unglobalcompact.org (accessed 22 March 2010).
[227] See www.equator-principles.com.
[228] See www.ifc.org.
[229] See http://business.un.org/en/documents/5292 (accessed 22 March 2010).
[230] Guidelines on Cooperation between the United Nations and the Business Sector, paragraph 6.
[231] Ibid., paragraph 8.
[232] See for instance Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (Newhaven, 2004) 107.
[233] See Sands P., *Principles of International Environmental Law* (Cambridge, 2003) 616.
[234] See Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 9.
[235] See Verschuuren J., *Principles of Environmental Law: The Ideal of Sustainable Development and the Role of Principles of International, European and National Environmental Law* (Baden-Baden, 2003) 51; Raustiala K. and Victor D., 'Conclusions' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 663.
[236] See for instance Erens S., Verschuuren J. and Bastmeijer K., 'Adaptation to climate change to save biodiversity: lessons learned from African and European experiences' in Richardson B., Le Bouthillier Y., McLeod-Kilmurray H., Wood S. (Eds.), *Climate Law and Developing Countries* (Cheltenham, 2009) 210; Trouwborst A., 'International Nature Conservation Law and the Adaptation of Biodiversity to Climate Change: a Mismatch?' (2009) 21:3 *Journal of Environmental Law* 419-442.
[237] See Kiss A., 'Commentary and Conclusions' in Shelton D. (Ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (Oxford, 2000) 239; see also Stokke O., 'Determining the Effectiveness of International Regimes' (2007) Conference Paper; and Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008) 125.
[238] Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 9, 10.
[239] From UNEP's Guidelines on Compliance With and Enforcement Of Multilateral Environmental Agreements, Section C 'Definitions' (UNEP/GCSS.VII/4/Add.2, 15 February 2002) available on www.unep.org.
[240] Victor D., Raustiala K., and Skolnikoff E., 'Introduction and Overview' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 15.
[241] See 1969 Vienna Convention on the Law of Treaties, Article 26.
[242] Latin for 'pacts must be respected'.
[243] See ICJ Case concerning the Gabcikovo-Nagymaros Project (Hungary/Slovak Republic), Judgment of 25 September 1997, ICJ Rep. 1997, 7, par. 142; the case is available on www.icj-cij.org.
[244] See for instance the Annex to the Strategic Plan of the CBD, Decision VI/26 (2002), in which the obstacles to the implementation of the convention are listed; see also Raustiala K., and Victor D., 'Conclusions' in Victor D, Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 661.
[245] See for more information on this subject Cassese A., *International Law* (Oxford, 2005) 221.
[246] See for more detailed information on this topic Brownlie I., *Principles of Public International Law* (Oxford, 2003) 31 and Shaw M., *International Law* (Cambridge, 2003) 120.
[247] See for more information on this subject Cassese A., *International Law* (Oxford, 2005) 222.
[248] CBD, Article 6 (a).
[249] UNEP's Guidelines on Compliance With and Enforcement Of Multilateral Environmental Agreements, Section E 'National implementation', Article 20 (UNEP/GCSS.VII/4/Add.2, 15 February 2002) available on www.unep.org.
[250] Agenda 21, Chapter 39 - International Legal Instruments And Mechanisms (39)(3)(e).
[251] This used to be the EC, but the signing of the Lisbon Treaty in 2009 introduced legal personality for the EU.
[252] The Vienna Convention on the Law of Treaties and the Vienna Convention on the Law of Treaties between States and International Organizations or Between International Organizations, Articles 34.
[253] See sub-section 5.10 for more information.

254 Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 50.
255 Ibid., page x, Preface.
256 Statement made by Mr. Hans Hoogeveen, Annex II to the report of the first meeting of the ad hoc open-ended working group on the review of implementation of the CBD (UNEP/CBD/COP/8/4, 30 September 2005).
257 Ardia D., 'Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment' (1998) 19:497 *Michigan Journal of International Law* 512.
258 Agenda 21, Chapter 39 - International Legal Instruments And Mechanisms (39)(3)(f).
259 Vienna Convention, Article 2 (1)(d).
260 Klabbers J., 'On Human Rights Treaties, Contractual Conceptions and Reservations' in Ziemele I. (Ed.), *Reservations to Human Rights Treaties and the Vienna Convention Regime* (Leiden, 2004) 2, available on www.helsinki.fi/eci/Publications/JReserve.pdf.
261 The treaties are available on http://untreaty.un.org/ilc/texts/1_1.htm.
262 ICJ, *Reservations to the Convention on the Prevention and Punishment of Genocide*, Advisory Opinion, ICJ Reports 1951, 15.
263 Vienna Conventions, Article 19 (a); see for instance CBD, Article 37.
264 Vienna Conventions, Article 19 (b); see for instance CITES, Article XXIII.
265 Vienna Conventions, Article 19 (c).
266 Vienna Conventions, Article 20 (1).
267 Vienna Conventions, Article 20 (2).
268 Vienna Conventions, Article 20 (3).
269 Vienna Conventions, Article 20 (5).
270 Vienna Conventions, Article 20 (4)(a).
271 Vienna Conventions, Article 21 (1).
272 Vienna Conventions, Article 20 (4)(c).
273 Vienna Conventions, Article 20 (4)(b) and Article 21 (3).
274 Vienna Conventions, Article 22 (1) and (2).
275 UNGA Resolution 48/31 of 9 December 1993.
276 Vienna Conventions, Article 19 (c).
277 Statement by the Permanent Mission of the Kingdom of the Netherlands to the United Nations during the 60th Session of the General Assembly 2005.
278 See *Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v Rwanda)* ICJ *Rep.* 2006, Joint Separate Opinion by Judges Higgins, Kooijmans, Elaraby, Owada and Simma of February 3, 2006, paragraph 10, available on www.icj-cij.org; for more information on this subject see also Brownlie I., *Principles of Public International Law* (Oxford, 2003) 586 and Shaw M., *International Law* (Cambridge, 2003) 828.
279 Human Rights Committee, General Comment 24 (52), General comment on issues relating to reservations made upon ratification or accession to the Covenant or the Optional Protocols thereto, or in relation to declarations under Article 41 of the Covenant, U.N. Doc. CCPR/C/21/Rev.1/Add.6 (1994), paragraph 18.
280 See for more information www.un.org/law/ilc (accessed 31 March 2010).
281 See Vienna Conventions, Articles 30 and 40.
282 Vienna Conventions, Article 40 (4).
283 Vienna Conventions, Article 30 (4)(b).
284 See Shaw M., *International Law* (Cambridge, 2003) 837.
285 Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 17.
286 1992 OSPAR Convention, Annex IV, Article 1; see for more information www.ospar.org.
287 See also sub-section 5.2 of this chapter.
288 See Agenda 21, Chapter 15 – Conservation of Biological Diversity (15)(6) and (15)(7).
289 See also sub-section 5.3.
290 Vulnerable, Endangered and Critically Endangered.
291 See www.iucnredlist.org (accessed 31 March 2010).
292 TRAFFIC stands for Trade Records Analysis of Flora and Fauna in Commerce.
293 See for more information on TRAFFIC www.traffic.org.
294 See Chapter I, section 3 for definition and IUCN categories.

295 See www.unep-wcmc.org/protected_areas.
296 See Chape S. et al., 'Measuring the extent and effectiveness of protected areas as an indicator for meeting global biodiversity targets' (2005) 360 *Phil. Trans. R. Soc. B* 443.
297 Ibid., 447.
298 Ibid., 446.
299 See www.birdlife.org.
300 See for more information www.panda.org and www.zsl.org (accessed 1 April 2010).
301 See Chapter I, section 1 for a brief overview of the findings of this study.
302 See for instance Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) available on www.millenniumassessment.org.
303 See Esty D. et al., *2008 Environmental Performance Index* (New Haven, 2008) Yale Center for Environmental Law and Policy; see also sub-section 5.1 of this chapter.
304 149 countries were included in the 2008 EPI.
305 The other five are: environmental health, air pollution, water, productive natural resources, climate change.
306 Conservation risk index, effective protected area conservation, critical habitat protection and marine protected areas.
307 See Esty D. et al., *2008 Environmental Performance Index* (New Haven, 2008) Yale Center for Environmental Law and Policy 82.
308 See for more information http://epi.yale.edu.
309 CBD Decision VI/26 (2002).
310 See UNEP/CBD/SBSTTA/2/4 (1996), paragraph 12.
311 Ibid.
312 See www.nasa.gov.
313 See www.esa.int.
314 See www.earthobservation.org.
315 See GEO-V, *The GEO Biodiversity Observation Network Implementation Overview: Early products and a vision for building the network* (2008) Document 7, 8-12.
316 www.gbif.org (accessed 1 April 2010).
317 Species 2000 is a global taxonomy organisation indexing the world's known species.
318 First Coordination Meeting on a Global Species Information System (GSIS), Brussels, 19/20 April 2007.
319 See Chapman A., *Numbers of Living Species in Australia and the World* (Canberra, 2009) available on www.environment.gov.au/biodiversity/abrs/publications/other/species-numbers.
320 See UNEP press release 10 November 2008: 'How Best to Put 'Nature-Based Assets' at Top of the International Political Agenda Focus of Malaysia Meeting'.
321 Early 2010.
322 Triepel H., 'Les rapports entre le droit interne et le droit international' HR (1923), 106.
323 See www.greenpeace.org/international (accessed 2 April 2010).
324 Various examples were discussed in the previous sub-section.
325 Yale University and Columbia University.
326 The EPI's are available on http://epi.yale.edu.
327 See Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 13.
328 See Hesselink F. and Goldstein W., 'Developing capacity for communication – managing change for biodiversity results' in Dandlund O. and Schei P. (Eds.), *Proceedings of the Norway/UN Trondheim Conference on Technology Transfer and Capacity Building* (Trondheim, 2003).
329 Ibid., 2.
330 Ibid., 2; more important are poverty, health, crime, terrorism, war, education, national economy, unemployment, food and water security.
331 Ibid., 5.
332 Ibid., 3; survey carried out by AC Nielsen to gauge awareness of the term biodiversity, commissioned by Environment Australia.
333 Ibid., 3; see also Elder J., Coffin C. and Farrior M., *Engaging the Public on Biodiversity – A road map for education and communication strategies* (Madison, 1998) 19.
334 The Gallup Organisation, *Flash Eurobarometer Attitudes of Europeans towards the issue of biodiversity: Draft analytical report Wave 2* (2010) European Commission, 5.

335 Ibid., 6.
336 Ibid., 6.
337 Ibid., 5.
338 See Steinberg P., 'From Public Concern to Policy Effectiveness: Civic Conservation in Developing Countries' (2005) 8:4 *Journal of International Wildlife Law & Policy* 351.
339 The Rio Declaration on Environment and Development (Rio de Janeiro, 13 June 1992).
340 See also Chapter II, sub-section 4.2.
341 See UNECE website www.unece.org/env/pp (accessed 4 April 2010).
342 Aarhus Convention, Article 1.
343 See sub-section 5.10 of this chapter.
344 See for instance Verschuuren J., 'Public Participation Regarding the Elaboration and Approval of Projects in the EU after the Aarhus Convention' in Etty T. and Somsen H. (Eds.), Vol. 4 *Yearbook of European Environmental Law* (Oxford, 2004), 30-31.
345 See www.unece.org/env/pp.
346 UNECE, Report of the Second Meeting of the Parties, Decision II/4 Addendum, 25-27 May 2005.
347 See Decision III/4: Promoting the Application of the Principles of the Convention in International Forums; Document ECE/MP.PP/2008/2/Add.6, 26 September 2008.
348 Hesselink F. et al., *Communication, Education and Public Awareness (CEPA): A Toolkit for National Focal Points and NBSAP Coordinators* (2007) 15.
349 Blasco D., 'The Pivotal Role of Communication, Education, Participation and Awareness (CEPA) in the Environmental Conventions' in IUCN CEC, *Achieving Environmental Objectives: The role and value of Communication, Education, Participation and Awareness (CEPA) in Conventions and Agreements in Europe* (2004) 1.
350 Ibid.
351 See www.iucn.org/themes/cec.
352 Hesselink F. et al., *Communication, Education and Public Awareness (CEPA): A Toolkit for National Focal Points and NBSAP Coördinators* (2007) 21.
353 Demmke C., 'Towards Effective Environmental Regulation: Innovative Approaches in Implementing and Enforcing European Environmental Law and Policy' (2001) *Academy of European Law online* 6.
354 See www.cbd.int/financial/sources.shtml.
355 See also sub-section 5.3 (ii) of this chapter.
356 For the role of the private sector see Rubino M., 'Biodiversity Finance' (2000) 76:2 *International Affairs* 223-240.
357 The Secretariat of the CBD gives the following description of a clearing-house mechanism: 'an agency that brings together seekers and providers of goods, services or information, thus matching demand with supply'; see www.cbd.int/chm/intro.
358 Terms used in some conventions; see for instance CBD, Article 16, paragraph 2.
359 See for instance Agenda 21, Chapter 34 - Transfer of Environmentally Sound Technology, Cooperation and Capacity-Building.
360 Non-paper by the United States Government (1996), submitted to the Committee on Trade and Environment, WTO (September 11, 1996) in Barret S., *Environment & Statecraft: The Strategy of Environmental Treaty-Making* (Oxford, 2003) 307.
361 See Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 37.
362 See Bodansky D., *The Art and Craft of Internatonal Environmental Law* (Cambridge, 2010) 226.
363 From UNEP's Guidelines for National Enforcement, and International Cooperation in Combating Violations, of Laws Implementing Multilateral Environmental Agreements, paragraph 38(a).
364 Ibid., paragraph 38(d).
365 See for instance Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 4.
366 See Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010) 265.
367 See United States General Accounting Office, *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 18.
368 Jacobson H. and Brown Weiss E., 'A Framework for Analysis' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 1.

[369] However, this issue is under discussion; see for instance the report of Camenzuli L., *The development of international environmental law at the Multilateral Environmental Agreements' Conference of the Parties and its validity* (2007) available on http://cmsdata.iucn.org/downloads/cel10_camenzuli.pdf; see also Hey E., 'The European Community's Courts and International Environmental Agreements' in Anderson M. and Galizzi P. (Eds.), *International Law in National Courts* (London, 2002) 69, on the position of the European Court of Justice in relation to non-binding decisions.

[370] See Principle 10 of the Rio Declaration on Environment and Development, Rio de Janeiro, 13 June 1992.

[371] Bodansky D. and Brunnée J., 'Introduction: The Role of National Courts in the Field of International Environmental Law' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 21.

[372] Aarhus Convention, Article 9

[373] Aarhus Convention, Article 2, paragraph 5.

[374] See for instance Bodansky D. and Brunnée J., 'Introduction: The Role of National Courts in the Field of International Environmental Law' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 20-21.

[375] The Johannesburg Principles on the Role of Law and Sustainable Development adopted at the Global Judges Symposium held in Johannesburg, South Africa on 18-20 August 2002.

[376] Ibid., see for more information www.unep.org/law/Symposium/Judges_symposium.htm.

[377] See for instance Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002).

[378] See for example Cassese A., *International Law* (Oxford, 2005) 494 and Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 242; see also United States General Accounting Office, *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 12.

[379] See for instance Haas P., 'Compliance Theories; Choosing to Comply: Theorizing from International Relations and Comparative Politics' in Shelton D. (Ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (Oxford, 2000) 45 and 54.

[380] See Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 243; see also United States Accounting Office, *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 12.

[381] The Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture is the sixth member of the Biodiversity Liaison Group.

[382] See for more information www.cbd.int/cooperation/related-conventions/blg.shtml.

[383] See http://earthwatch.unep.ch.

[384] See Chapter II, sub-section 2.2 for more information on the International Whaling Convention; see also http://iwcoffice.org.

[385] See Cassese A., *International Law* (Oxford, 2005) 495.

[386] See Chapter II, sub-section 4.2 for more information on the Antarctic Treaty System.

[387] See for more information www.ats.aq.

[388] See Chapter II, sub-section 3.2 for more information on the Bern Convention.

[389] See for more information www.coe.int.

[390] See Fitzmaurice M. and Redgwell C., 'Environmental Non-Compliance Procedures and International Law' (2001) Volume XXXI, *Netherlands Yearbook of International Law* 39.

[391] See for instance Victor D., 'The Operation and Effectiveness of the Montreal Protocol's Non-Compliance Procedure' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 151.

[392] See http://ozone.unep.org for more details on the convention and the protocol.

[393] The latest version of the Non-Compliance Procedure of the Montreal Protocol has been laid down in Annex II of the report of the Tenth Meeting of the Parties, 1998.

[394] Non-Compliance Procedure, paragraph 3.

[395] Non-Compliance Procedure, paragraphs 1 and 2.

[396] Non-Compliance Procedure, paragraph 4.

[397] Non-Compliance Procedure, paragraph 9.

[398] Ibid.

[399] See Annex V of the report of the Fourth Meeting of the Parties in 1992.

[400] See for more information on the Non-Compliance Procedure of the Montreal Protocol Sarma M. *Compliance with the Montreal Protocol* (2005) Paper submitted to the Seventh International Conference on Environmental Compliance and Enforcement, INECE, 9-15 April 2005; Victor D., 'The Operation and Effectiveness of the Montreal Protocol's Non-Compliance Procedure' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 137; Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 354.

[401] See Sarma M., *Compliance with the Montreal Protocol* (2005) Paper submitted to the Seventh International Conference on Environmental Compliance and Enforcement, INECE, 9-15 April 2005, 306-307; Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 353.

[402] See Sarma M., *Compliance with the Montreal Protocol* (2005) Paper submitted to the Seventh International Conference on Environmental Compliance and Enforcement, INECE, 9-15 April 2005, 308; Victor D., 'The Operation and Effectiveness of the Montreal Protocol's Non-Compliance Procedure' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 165; Potzold C., *Multilateral Environmental Agreements: Innovative International Compliance Procedures* (2009) Paper submitted to the University of British Columbia Conference on Multilateral Environmental Agreements: contributions to global environmental governance, 6 March 2009, 14.

[403] A Compliance Committee has been installed in 2006 that is made up of two branches: a Facilitative Branch and an Enforcement Branch; see for more information http://unfccc.int2860.php.

[404] The 1994 Oslo Protocol on Further Reduction of Sulphur Emissions is a protocol to the 1979 Convention on Long Range Trans-boundary Air Pollution; see for more information www.unece.org/env/lrtap/lrtap_h1.htm.

[405] See for more information www.unccd.int.

[406] See for example Chapter V, sub-section 2.10 on the World Heritage Convention and Chapter VI, sub-section 2.10 on CITES.

[407] See Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999) 39; see also United States General Accounting Office, *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999) 23; and Haas P., 'Compliance Theories: Choosing to Comply: Theorizing from International Relations and Comparative Politics' in Shelton D. (Ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (Oxford, 2000) 54.

[408] The full text of Article 33 of the UN Charter is as follows: '1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice. 2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means'.

[409] Brown Weiss E., 'The Five International Treaties: A Living History' in Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998) 166.

[410] See for more information on this subject Brownlie I., *Principles of Public International Law* (Oxford, 2003) 671; and Shaw M., *International Law* (Cambridge, 2003) 914 and 51.

[411] 1907 Hague Convention on the Pacific Settlement of International Disputes, Article 37.

[412] See the Statute of the International Court of Justice, Articles 36 and 40.

[413] See for an extensive article on this subject Pouliot V., '*Forum prorogatum* before the International Court of Justice: The *Djibouti v France* case' (2008) 3:3 *Hague Justice Journal*.

[414] For example the *Gabcikovo-Nagymaros Dam* case, ICJ Rep. (1997) 7.

[415] UN Organs: General Assembly, Security Council, Economic and Social Council, Trusteeship Council, Interim Committee of the General Assembly; The specialised agencies of the UN family authorised to request advisory opinions from the ICJ: International Labour Organization, Food and Agriculture Organization of the United Nations, United Nations Educational, Scientific and Cultural Organization, World Health Organization, International Bank for Reconstruction and Development, International Finance Corporation, International Development Association, International Monetary Fund, International Civil Aviation Organization, International Telecommunication Union, World Meteorological Organization, International Maritime Organization, World Intellectual Property Organization,

International Fund for Agricultural Development, United Nations Industrial Development Organization, International Atomic Energy Agency.

416 See www.icj-cij.org (accessed 15 April 2010).

417 Statute of the International Court of Justice, Article 34.

418 Statute of the International Court of Justice, Article 65.

419 Permanent Court of Arbitration, Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment, adopted in 2001 and available on www.pca-cpa.org.

CHAPTER IV: CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITAT

1. Introduction

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat, better known as the Ramsar Convention, is a historic treaty in so far as it is the first global agreement for the conservation of a certain type of ecosystem, in this case wetlands. Wetlands have been defined in Article 1 of the convention as:

'areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres'.

Wetlands have been neglected and severely damaged by humans for centuries, but the 20th century was especially disastrous. In this period more than 50% of wetlands in the developed countries were destroyed.[1] Just in Europe, two-thirds of all wetlands that existed at the beginning of the 20th century have now been lost.[2] Only after WWII a realisation of the immense value of wetland ecosystems started to emerge. Wetlands are essential for supporting plant and animal life, as well as for maintaining the quality of the environment. Their functions include: water supply and purification, flood and climate regulation, shoreline stabilisation and food chain support.

The Ramsar Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975. The foundation for the convention was laid in 1960 when three international environmental NGOs, the IUCN, Wetlands International (the International Wildfowl Research Bureau (IWRB) at the time), and BirdLife International (the International Council for Bird Preservation (ICBP) at the time) took the initiative by launching an international programme for the protection of wetlands.[3] This resulted in a conference in Saintes-Maries-de-la-Mer, France in November 1962 that was attended by some 80 experts from all over the world. Thirteen recommendations for action resulted from this meeting. Further meetings on the protection of wetlands were to follow and in 1965 a document setting out the subjects for an international convention on wetlands was send out to 35 states requesting their comments.

In 1966, the Dutch government accepted the task to explore the possibilities of drafting such a convention, which in October 1967 resulted in a first draft of a 'Wetlands Convention'. More meetings followed and the far-reaching obligations that were initially proposed became much weaker in the process. When agreement had by and large been reached on the final draft of the convention, the Iranian government send out invitations for an International Conference on the Conservation of Wildfowl and Wetlands to be held in Iran from 30 January to 3 February 1971. Although initially planned in the city of Babolsar, the venue of the conference was eventually moved to Ramsar. The Convention on Wetlands of International Importance Especially as Waterfowl Habitat became reality on February 2, 1971.[4]

The focus of the convention is on three so-called 'pillars of action'.[5] The first pillar concerns the commitment of the Contracting Parties to the wise use of all their wetlands.[6] Wetlands that are considered to be of international importance are dealt with under the second pillar

and should receive special attention under the convention. Based on Article 2, paragraph 1 of the convention, a list has been established of 'wetlands of international importance' (the List),[7] which are significant 'in terms of ecology, botany, zoology, limnology or hydrology'.[8] The term 'wetlands of international importance' has not been defined in the convention, but a set of criteria has been agreed upon at a later stage.[9] Finally, the third pillar of action is about international cooperation.[10]

Since its ratification the convention has been modified twice. Soon after it entered into force it became clear that some amendments would be required to enhance the position of the Conference of the Contracting Parties (COP) and improve the financial arrangements. Unfortunately, no amendment procedure had been laid down in the convention. To address this, the Paris Protocol was adopted in 1982 by the Contracting Parties, which *inter alia* enabled the COP to amend the convention.[11] The Paris Protocol entered into force on 1 October 1986. The COP used the new amendment provision when it adopted the 'Regina Amendments' in 1987, which dealt with the identified deficiencies in the convention and entered into force on 1 May 1994.[12]

In 1996, the COP approved its first Strategic Plan for the period 1997-2003,[13] to be followed in 2002 by the second Strategic Plan 2003-2008[14] and in 2008 by the third Strategic Plan 2009-2015.[15] The Strategic Plan was introduced by the Conference of the Contracting Parties (COP) as a basis for the implementation of the convention and is not legally binding. The latest plan defines several goals as well as the strategies to realise them.[16]

The Ramsar Convention has never been part of the UN, UNESCO, UNEP system of environmental treaties, but UNESCO is the depository of the convention. Since the signing of the convention the number of Contracting Parties has slowly but steadily increased from seven in 1975, to 159 in 2009.[17] Presently, there are 1,880 wetland sites designated under the convention, covering a total of 185 million hectares.[18] This is over 14% of the total area of wetland ecosystems, which is conservatively estimated to cover 1,280 million hectares globally.[19]

In the next section the effectiveness of the Ramsar Convention will be assessed on the basis of the Effectiveness Test.

Box I: Key Terms Ramsar Convention

WETLANDS are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.[20]

CRITERIA FOR THE DESIGNATION OF WETLANDS OF INTERNATIONAL IMPORTANCE:
Criterion 1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region;
Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities;
Criterion 3: A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region;
Criterion 4: A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions;
Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds;
Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird;
Criterion 7: A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions, and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity;
Criterion 8: A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend;
Criterion 9: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.[21]

WISE USE OF WETLANDS is the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.[22]

SUSTAINABLE UTILISATION is the human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.[23]

ECOLOGICAL CHARACTER is the combination of the ecosystem components, processes and services that characterise the wetland at a given point in time.[24]

CHANGE IN ECOLOGICAL CHARACTER is adverse change, caused by human activities.[25]

WATERFOWL are birds ecologically dependent on wetlands.[26]

2. The Effectiveness of the Ramsar Convention

2.1 Element 1: Parties

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.*

The Ramsar Convention entered into force in 1975. At that time the convention only had seven Contracting Parties.[27] In 1980 the list of Contracting Parties had increased to 25 and by 1990, the number had risen to 51. Since the 1990s the number of applications has risen steadily and today 159 states are Contracting Parties to the convention,[28] which exceeds the benchmark of at least three-quarters of UN Member States.

In the convention's Strategic Plan 2009-2015, one of the goals is to 'progress towards universal membership of the Convention'.[29] The objective laid down in the previous Strategic Plan for the period 2006-2008 to achieve membership of 170 Contracting Parties by COP10 has not been realised. This has now become the objective for COP11.[30]

The current list of Contracting Parties includes all 27 EU Member States, as well as the United States of America. Most, if not all, states that are developed countries are Contracting Parties to the convention. The participation of these states is important, not only for the conservation of their wetlands, but also for the financial resources and political clout that some of these states have. Supranational bodies such as the EC are not eligible to become a Contracting Party to the convention,[31] but the EC has observer status at the Conference of the Contracting Parties (COP) meetings. The vast majority of states that are developing countries have become Contracting Parties as well. It is indicated in the 2008 Report of the Secretary General that the remaining gaps are in parts of Africa, Central Asia, the Middle East and amongst the Small Island States.[32]

Conclusion

Based on the fact that over three-quarters of UN Member States are now a Contracting Party to the convention, including those states that, because of their political, financial and/or natural resources, can be expected to play an important role in addressing the problem of the destruction and deterioration of wetlands, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.2 Element 2: Institutional Framework

Benchmark: *For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.*

The most important bodies that are active under the convention are the Conference of the Contracting Parties (COP), the Standing Committee, the Bureau (now Secretariat) and the Scientific and Technical Review Panel (STRP). The role of each of these bodies as well as the adequacy of the financial budget will be discussed in more detail below. The COP and the Bureau are provided for in the convention,[33] the Standing Committee and the STRP have been created by resolutions.[34]

Of the five biodiversity-related conventions assessed in this study, the Ramsar Convention is the only one that is not part of the UN system of environmental treaties. As indicated by the Secretariat, at the time the convention was negotiated in the 1960s this was just never considered.[35] The Secretariat is of the opinion that on balance its current position is preferable, since it can act more efficiently and it operates in an atmosphere that is less politically charged than it might be within the UN system. On the other hand, UN status could prevent practical difficulties in terms of obtaining travel visas etc.[36] At the COP10 meeting in 2008, it was decided to establish an Ad Hoc Working Group on Administrative Reform to determine whether the Secretariat should be provided by UNEP or become an independent organisation.[37]

i. The Conference of the Contracting Parties

The original text of the convention stated that there shall be, 'as the necessity arises', Conferences of the Parties,[38] adding that these conferences 'shall have an advisory character'.[39] Very soon the consultative nature of the COP was found to be unsatisfactory. Unfortunately, the original convention did not include an amendment clause either. As a result, the first serious action that had to be taken by the COP was the adoption of a protocol that would enable the COP to amend the convention. In 1982, the Paris Protocol was adopted by the Contracting Parties, which *inter alia* created the possibility for the COP to make such amendments. The amendment procedure was subsequently laid down in the convention text.[40]

The COP used this new provision when it adopted the 'Regina Amendments' in 1987, which strengthened its position.[41] The most important amendments that were adopted can be summarised as follows: (1) the COP should be held at least every three years; (2) the 'advisory character' of the COP was removed from the text of the convention; (3) additional recommendations or resolutions may be adopted to promote the functioning of the convention.[42] Furthermore, rules of procedure should be adopted for each of the COP meetings.[43] New paragraphs dealing with financial matters such as the budget and Contracting Parties' contributions to it were also added.[44] However, it should be noted that many Contracting Parties have not ratified the Paris Protocol and the Regina Amendments.[45]

The COP is the principal decision-making organ and its participants, the Contracting Parties, now meet at least once every three years. Each of the Contracting Parties has one vote at these meetings and recommendations, resolutions and decisions are adopted by a simple majority of the Contracting Parties present and voting, unless otherwise provided for in the convention.[46] The representatives of the Contracting Parties should include experts on wetlands or waterfowl.[47] The successive meetings are referred to as COP1, COP2 etc. In 2008, the latest COP meeting, COP10 took place in Changwon, Republic of Korea. These meetings have now become major events. The number of participants at COP10 was over 2,000, including representatives of most Contracting Parties and observers.[48]

The existing Rules of Procedure for the COP meetings[49] include the important section concerning the participation of observers.[50] Initially, only authorised states that were not Contracting Parties as well as international organisations were allowed to be present as observers. This has now been extended to national as well as international NGOs, as long as one-third of the Contracting Parties do not object.[51]

ii. The Standing Committee

In 1987, the COP decided to establish a Standing Committee, to manage the affairs of the convention and the activities of the Secretariat between COP meetings.[52] The members of the Standing Committee are representatives of the Ramsar Convention's six regional groups, Africa, Asia, Europe, Neotropics, North America and Oceania.[53] The number of representatives per group depends on the number of Contracting Parties per group.[54] A rotation system is used for the nomination of regional representatives.[55] The Standing Committee also has seven permanent observers, Switzerland (as host to the Secretariat), The Netherlands (as host to Wetlands International) and the five International Organisation Partners (IOPs): Wetlands International, the IUCN, the WWF, BirdLife International and the International Water Management Institute.

The main functions of this body include carrying out all necessary interim activities between COP meetings as well as preparing the COP meetings. It is responsible for overseeing the activities of the Secretariat as well as for supervising the budget.[56] The Standing Committee is also authorised to establish subgroups for certain subjects,[57] and seven of these subgroups are currently active.[58] A meeting of the Standing Committee should take place at least once a year as well as immediately before and after a COP meeting.[59]

iii. The Secretariat

In Article 8, paragraph 1 of the Ramsar Convention it has been laid down that the 'International Union for Conservation of Nature and Natural Resources shall perform the continuing bureau duties under this Convention until such time as another organization or government is appointed by a majority of two-thirds of all Contracting Parties'. Already at the first COP meeting in Cagliari, Italy, in 1980, it was decided that a permanent and well-financed secretariat would be required.[60] However, it took a considerable period of time to realise this intention. In 1990 at COP4 in Montreux, Switzerland, the Secretariat (then the Bureau) was established as a distinct unit, but the division of powers between the Director General of the IUCN and the Standing Committee for the administration of the convention remained unclear.[61] In 1993, the Secretariat's responsibilities under the Ramsar Convention were transferred from the Director General of the IUCN to the Secretary General of the convention, who now carries out these duties on behalf of the Director General of the IUCN.[62] As long as the convention is not part of the UN system, its staff is legally considered to be IUCN personnel. In 2005, the COP requested the Secretary General to address this issue.[63] As discussed in the introduction of this sub-section one solution could be to let the Ramsar Convention become part of UNEP, although this option does not appear to be favoured by the Secretariat.[64] At the COP10 meeting in 2008, the COP decided to establish an Ad Hoc Working Group on Administrative Reform, which is supposed to look into the matter.[65]

In 2005 it was decided to change the term 'Bureau' to 'Secretariat' to bring it 'in line with modern practice'.[66] In this study the term 'Secretariat' will be used. The Secretariat is located in Gland, Switzerland, in the headquarters of the IUCN. It is headed by the Secretary General,[67] who reports to the Standing Committee, and who has currently available 16 permanent staff members, four internships and two outposted representatives, one in Greece and another in Samoa.[68]

The functions of the Secretariat have been formulated in the convention as follows:[69]

- to assist in the convening and organising of Conferences specified in Article 6;[70]
- to maintain the List of Wetlands of International Importance and to be informed by the Contracting Parties of any additions, extensions, deletions or restrictions concerning wetlands included in the List;[71]
- to be informed by the Contracting Parties of any changes in the ecological character of wetlands included in the List;[72]
- to forward notification of any alterations in the List, or changes in character of wetlands included therein, to all Contracting Parties and to arrange for these matters to be discussed at the next Conference;[73]
- to make known to the Contracting Party concerned, the recommendations of the Conferences in respect of such alterations to the List or of changes in the character of wetlands included therein.[74]

It is indicated in the convention that these duties are *inter alia*, and it is not surprising that the number of secretarial tasks has expanded over the years. The additional tasks include liaising with the relevant stakeholders, assisting the Contracting Parties with the implementation of the convention, analysing the National Reports and administrating projects funded with earmarked contributions. Every year, a Secretariat Work Plan is prepared, which needs approval from the Standing Committee.

It appears from various documents that the current number of staff is rather limited, especially in view of the significant increase in the number of Contracting Parties over the past few years.[75] In one of the documents prepared for the COP10 meeting it is indicated by the Secretariat that its capacity is 'overstretched' and that as a consequence tasks are carried out 'hastily, shoddily in some cases, incompletely and perhaps in some cases unacceptably poorly'.[76] It is further stated that compared with other multilateral environmental agreements, including the World Heritage Convention, CITES, the CMS and the CBD, the number of Secretariat staff and the size of the core budget of the Ramsar Convention is 'below-the-line'.[77] In order to address this, the Secretariat proposed to add eleven new posts to the core budget,[78] of which only one was approved by the COP at its 2008 meeting.[79]

iv. The Scientific and Technical Review Panel

Established in 1993, the Scientific and Technical Review Panel (STRP) is the body of the convention that should provide scientific and technical guidance to the COP, the Standing Committee and the Secretariat.[80] The Standing Committee's system of regional representation is also applied to the appointment of the expert members of the STRP, albeit that just one member is appointed from each region. Furthermore, six extra members are appointed as wetland experts for whom 'regional balance' is sought, while one CEPA

member is also named. In addition to these 13 members, representatives of the five IOPs are appointed as well.[81] The members are appointed by the STRP Oversight Committee of the Standing Committee for a period of three years (triennium). A minimum of one-third of the STRP members should be re-appointed for a second term to ensure continuity.[82]

The tasks of the STRP are established for a period of three years and laid down in a work plan.[83] The main tasks of the STRP include giving scientific and technical advice to the Contracting Parties and the bodies of the convention, drafting guidelines and reports on wetland related issues, cooperating with a network of scientists and experts and maintaining relations with the scientific and technical bodies of other relevant environmental conventions.

In various documents it is indicated that due to a lack of resources the STRP is forced to focus on its main priorities and unable to carry out all the required tasks.[84]

The COP has requested each of the Contracting Parties to appoint a technical expert as national focal point concerning STRP matters.[85] Many Contracting Parties have now complied with this request.

v. The Administrative Authority

Each Contracting Party has appointed an Administrative Authority that is responsible for the implementation of the convention on a national level. The Administrative Authorities, often referred to as National Focal Points, also act as national contact points for the Secretariat of the convention.[86]

vi. The Financial Budget

The original convention did not include a provision concerning financial matters. Initially, financial support for the convention came from the IUCN and Wetlands International, two of the founding NGOs. Soon this was found to be unsatisfactory and it became clear that an annual budget would be required to be able to implement the convention and that the Contracting Parties would have to contribute to this. This was realised with the adoption of the Regina amendments in 1987.[87] The COP is now responsible for the establishment and review of the financial regulations of the convention and at each COP meeting the budget for the next financial period has to be adopted by a two-thirds majority of the Contracting Parties present and voting.[88] Furthermore, each Contracting Party has to contribute to the budget and a scale of contribution has to be agreed upon unanimously.[89] The calculation of the annual contribution is presently based on the United Nations scale of contribution, but the contribution of the poorest Contracting Parties is fixed at CHF 1,000 per annum.[90]

The Secretary General is responsible for the management of the budget and reports to the Standing Committee. In 1996, it was decided by the COP that a Subgroup on Finance would be established by the Standing Committee.[91] One of the tasks of the subgroup is to give 'guidance and advice' to the Secretary General in the discharge of his duties in connection with the administration of the finances of the convention.[92]

The latest budget covers the 2009-2012 cycle, for which period the COP decided to allow a four percent annual budget increase.[93] It appears that during the COP10 meeting many Contracting Parties acknowledged that the current Secretariat staffing levels had become 'a key constraint in effective implementation' of the convention.[94] However, some Contracting Parties, including the USA, Japan and China, still held out for an unchanged

budget before eventually accepting a four percent annual increase, which was later adopted by the COP. This means that the budgeted expenditure for each of these years is forecasted to be between CHF 4,500,000 and CHF 5,100,000,[95] which is a modest annual increase after years of a largely unchanged budget.[96]

A large number of Contracting Parties (41), which are all developing countries, are in arrears with their contributions, some already for many years.[97] The total amount concerned as of the end of August 2008 is CHF 268,466.[98]

vii. Conclusion

The convention only provides for the COP and the Secretariat, but additional bodies, including a scientific body, were later added by the COP.

It has become clear that a lack of funding impairs the functioning of the Secretariat and the STRP. Over the years both bodies needed to add considerably to their tasks, while at the same time the number of Contracting Parties increased steadily. By contrast the core budget has only shown a modest increase. During the past two COP meetings (COP9 and COP10) it became apparent that the COP is not prepared to structurally address this issue.

The contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.3 Element 3: Environmental NGOs and Other Stakeholder Groups

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.*

The convention does not include a specific provision that allows environmental NGOs or other relevant organisations to be involved in its implementation, although in Article 6 it has been laid down that the Conference of the Contracting Parties (COP) is competent 'to request relevant international bodies to prepare reports and statistics on matters which are essentially international in character affecting wetlands'.[99] Furthermore, the secretarial duties have been delegated to the IUCN from the start of the convention,[100] an indication of the close relationship between this international environmental NGO and the bodies of the convention.

In 1999, the COP adopted the Guidelines for International Cooperation under the Ramsar Convention,[101] in which the cooperation with several stakeholders, such as the environmental NGOs and the bodies of environmental conventions, has been described. Similar clauses have been laid down in the Strategic Plan 2003-2008 under General Objective 3: International cooperation,[102] which can also be found in the latest Strategic Plan 2009-2015 as Goal 3.[103]

Rules of Procedure are adopted for each COP meeting, usually without many changes from the previous meeting.[104] In this document special arrangements have been made for the involvement of observers. In Rule 7 it is stated that 'any body or agency, national or international, whether governmental or non-governmental, qualified in fields relating to the conservation and sustainable use of wetlands, which has informed the Secretariat of its wish to be represented at meetings of the Conference of the Parties may be represented at the meeting by observers, unless at least one third of the Parties present at the meeting

object'.[105] Observers are allowed to participate in the meetings, but have no right to vote.[106] They are also permitted to make proposals, which can be put to the vote if sponsored by a Contracting Party.[107] Representatives of UN agencies as well as states that are not a Contracting Party to the convention can also participate as observers.[108]

Besides the above mentioned documents that are of a general nature, more specific resolutions and documents in relation to stakeholder participation have also been adopted and agreed upon over the years. These include memoranda of understanding and cooperation with a variety of stakeholders, which will be discussed in more detail later in this sub-section.

i. Environmental NGOs

Since international environmental NGOs were the initiators of the Ramsar Convention,[109] it is not surprising that strong links still exist. The first formal expression of the importance of the cooperation with environmental NGOs was laid down in Recommendation 5.6 that was adopted in 1993 at COP5.[110] This recommendation confirms the COP's strong support for NGOs that aim at the conservation and wise use of wetlands and it 'encourages Contracting Parties to consult NGOs, provide them with relevant information and offer them ample opportunities to contribute to the formulation and implementation of governmental wetland policy'.[111]

In Resolution VII.3, the COP goes one step further by introducing the distinction between the so-called International Organisation Partners (IOPs) and other NGOs. The four international environmental NGOs that have played an instrumental role in the inception and development of the Ramsar Convention, Wetlands International, BirdLife International, the IUCN and the WWF, receive the status of IOP, but other organisation are invited to apply for IOP status as well. The Annex to Resolution VII.3 states the rules in relation to obtaining the IOP status and lays down the special rights and duties of IOPs. They are invited to take part in all activities of the convention as observers and advisors, including the COP and Standing Committee meetings. Furthermore, they are full members of the Scientific and Technical Review Panel (STRP) and may also be involved in the implementation and evaluation of projects and the development of policies and technical and scientific instruments.[112] The International Water Management Institute (IWMI) has been the only newly appointed IOP so far.[113]

Memoranda of cooperation have been signed with all five IOPs, but also with a long list of other NGOs.[114] In many cases the cooperation consists of project and/or scientific support, often focused on the implementation of the convention.[115] A substantial number of environmental NGOs are usually present at COP meetings.

ii. Scientists

Many of the international NGOs have accumulated important scientific data on wetlands and waterbirds over the years and should therefore be mentioned here as well. This holds good for the five IOPs as well as for organisations such as Wetland Link International of the Wildfowl and Wetlands Trust, The Society of Wetland Scientists and the Center for International Earth Science Information Network. In the Memoranda of cooperation or understanding with these NGOs clauses concerning the sharing of expertise on wetlands

and water resources are usually included. Wetlands International, for instance, makes a 'web-based wetland inventory meta-database' available to the Ramsar Secretariat.[116]

To improve contacts with scientists working within the territories of the Contracting Parties it has been decided by the COP that each Contracting Party should appoint a technical expert as national focal point who would be able to facilitate the use of local knowledge of wetlands and waterfowl.[117]

The participation of the Ramsar Convention in the Millennium Ecosystem Assessment (MA) deserves special mentioning. This process was launched by the UN in 2001 and the COPs of some environmental conventions, including the Ramsar Convention, requested the MA team to provide them with specific information in relation to their convention. The resulting MA for wetlands and water was realised in close cooperation with representatives of the convention and will be discussed in more detail in sub-section 2.7.

iii. Bodies of Biodiversity-Related and Other Environmental Conventions

The importance of cooperation with other environmental conventions is clearly signalled in the Strategic Plan 1997-2000 adopted in 1996[118] and is discussed in the 1999 Guidelines for international cooperation under the Ramsar Convention as well.[119] The previous Strategic Plan 2003-2008 as well as the latest Strategic Plan 2009-2015 have included the collaboration with other environmental conventions as one of the strategies.[120]

Resolution VII.4 deals with the subject in more detail.[121] It acknowledges the significance of cooperation and integrated implementation of environmental conventions[122] and specifically underlines the importance of close collaboration with the CBD, the CMS, the World Heritage Convention, the Convention to Combat Desertification and the United Nations Framework Convention on Climate Change (UNFCCC). The most recent COP resolution on the subject is Resolution X.11 on Partnerships and synergies with Multilateral Environmental Agreements and other institutions,[123] which again stresses that benefits are to be gained from synergy and integrated implementation with other environmental conventions.[124]

The cooperation with the other biodiversity-related conventions assessed in this study has been formalised in the following manner:

The institutions of the CBD started their activities in the 1990s and it was obvious from the start that some overlap would exist between the two conventions. The COP of the CBD has for instance included 'inland water ecosystems' and 'marine and coastal ecosystems' as thematic areas, which types of ecosystems are also largely covered by the definition of wetlands under the Ramsar Convention. The common ground has been acknowledged by both sides and action has been taken to work together to achieve the best results and avoid duplication. The first Memorandum of Cooperation was signed in 1996 and has now been replaced by the second Memorandum of Cooperation signed on 10 May 2005. Joint Work Plans are agreed upon as well and the fourth Joint Work Plan is in preparation.[125] These documents are extensive and clearly describe the joint actions that should be taken in relation to shared issues. In 1996, the COP of the CBD decided that the institutions of the Ramsar Convention are their lead implementation partner on wetlands.[126]

In 1997, a Memorandum of Understanding was signed with the Secretariat of the CMS. The conservation of migratory wetland fauna (including waterfowl) is covered by both conventions and the need to cooperate closely has been recognised by both sides. One of the agreements that has been arranged under the CMS is the Agreement on the

Conservation of African-Eurasian Migratory Waterbirds (AEWA),[127] and a Joint Work Plan exists between the Secretariats of the Ramsar Convention, the CMS and the AEWA.[128]

A Memorandum of Understanding was also signed with the World Heritage Centre of the World Heritage Convention in 1999 with the intention to work together in relation to sites that are protected or should be protected under both the Ramsar Convention and the World Heritage Convention.[129]

Although many endangered wetlands species are protected under CITES, no agreement has been signed yet between the secretariats of the Ramsar Convention and CITES. However, in the Guidelines for International Cooperation under the Ramsar Convention a special paragraph has been dedicated to CITES in which it is stated that 'Contracting Parties to both Conventions have a dual obligation to take the necessary action to guarantee that the harvesting is sustainable and in accordance with CITES rules'.[130] Special guidelines related to the trade in wetland derived products have been included in the same paragraphs.[131] It appears from the Guidelines for International Cooperation under the Ramsar Convention that more extensive cooperation with the institutions of CITES is considered to be desirable.[132]

Besides these largely bilateral forms of cooperation between the bodies of the biodiversity-related conventions, steps have also been taken to improve working relations between the secretariats of these five conventions. In 2004, the COP of the CBD took the initiative to form a Biodiversity Liaison Group, to ensure the smooth running of overlapping activities and to enhance synergies and cooperation.[133] The Secretariat of the Ramsar Convention participates in this group and is required to report to the Standing Committee under the Ramsar Convention on progress made.[134] Over the years a number of meetings have taken place, but the progress made so far appears to be limited.[135] Meanwhile, the five biodiversity-related conventions have set up a joint website.[136]

The Secretariat of the Ramsar Convention has also signed Memoranda of Cooperation with the secretariats of other environmental conventions such as the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (UNCCD), the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, and the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean. A Joint Programme of Work has been agreed upon with UNESCO for its Man and Biosphere Programme.[137]

It has been recognised by the COP of the Ramsar Convention that climate change may have a serious impact on wetlands. At the same time wetlands can play a significant role in adapting to its consequences.[138] Although no Memorandum of Cooperation has been signed yet with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), as was requested by the COP during COP7,[139] the Secretariat was invited to participate as observer in the Joint Liaison Group, which has been formed by the three Rio Conventions (the CBD, the UNCCD and the UNFCCC).[140]

iv. International and Regional Organisations

The Guidelines for International Cooperation under the Ramsar Convention indicate that the bodies of the Ramsar Convention aim at a closer working relationship with many international programmes and organisations, including United Nations agencies and bodies.[141] The COP is especially interested in seeking partnerships with United Nations

Environment Programme (UNEP), the United Nations Development Programme (UNDP) and other relevant UN agencies.[142] Access to Global Environment Facility (GEF) funding plays a significant role in striving towards close cooperation with these organisations. Financial support from the GEF could hugely benefit wetland projects that are carried out by the Contracting Parties that are developing countries.[143]

Finally, a Memorandum of Understanding is in place with one UN agency, the United Nations Conference on Trade and Development (UNCTAD),[144] and a Memorandum of Cooperation has been signed with the European Environment Agency.[145]

v. Corporate Sector

In the Strategic Plan 2009-2015, one of the strategies is to promote the involvement of the private sector in the conservation and wise use of wetlands.[146] At the COP 10 meeting in 2008, a resolution was adopted that laid down the principles for partnerships with the business sector.[147] One of the objectives stated in these principles is 'to expand the resource base of the Convention and its activities by developing mutually beneficial relationships with the business sector'.[148] Rules are included in the guidelines in relation to the scrutiny of a company the convention intends to establish a partnership with.[149]

Meanwhile cooperation with the Danone Group exists since 1998. Various partnership agreements have been signed since, including a Memorandum of Understanding in 2007 in which Danone and its affiliated company Evian commit themselves to make a substantial additional annual donation (partly based on the litres of Evian water sold in France) to the convention to underwrite certain field projects.[150] A partnership with Star Alliance, which is a global airline network, has made low-cost travel possible for delegates of the Contracting Parties.[151]

vi. Conclusion

The bodies of the Ramsar Convention have been cooperating with relevant stakeholders, especially environmental NGOs, from an early stage. The close relationship with the IUCN, Wetlands International, BirdLife International as well as the WWF has always been a major feature of the convention. As one legal commentator has put it: 'it is plausible to claim that they [the environmental NGOs] have been more successfully integrated into the mainstream of activities under this [Ramsar] Convention than under any other.[152]

The bodies of the Ramsar Convention, especially the Secretariat, have also developed good working relations with most of their counterparts at other relevant environmental conventions. Close connections exist as well with organisations that can be called upon to provide scientific support to the bodies of the convention. The realisation of the MA for wetlands and water has been an impressive achievement in this regard.

The Ramsar Convention is furthermore one of the few biodiversity-related conventions that has long been open to cooperation with the private sector. This has for instance resulted in a long-standing relationship with the Danone Group.

Based on the fact that close cooperation exists with the relevant environmental NGOs as well as with other important stakeholders, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.4 Element 4: Objectives, Measures and Timing

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.*

As discussed in Chapter III, a biodiversity-related convention needs clear objectives and measures that are aimed at addressing the problem.[153] In case of the Ramsar Convention, the underlying problem that has led to the creation of the convention has been formulated briefly in the preamble of the convention as the 'progressive encroachment on and loss of wetlands'.[154] In his historic overview of the convention Matthews explains the cause of the destruction of wetlands in more detail: 'For centuries mankind had viewed wetlands as places to drain and convert to more obvious uses, such as agriculture'.[155] Bowman also examines the question why humans have misused wetlands so badly in his article 'The Ramsar Convention on Wetlands: Has it Made a Difference?'.[156] Wetlands such as marshes, swamps and bogs for instance were and still are often looked at as areas of little value to humans with the additional disadvantage of being breeding grounds for mosquitoes. It may therefore not be surprising that even now the degradation and loss of wetlands goes faster than that of any other ecosystem. Species depending on wetlands face similar threats.[157]

The measures that are laid down in the convention usually need further interpretation, clarification and development by the COP, which it has done over the years in numerous resolutions and recommendations. Additional issues, not directly related to the convention measures, have been dealt with by the COP as well.

Besides clear objectives and adequate measures, it is also important for the effectiveness of the convention that a time table is in place indicating when specific measures should be realised. Since it is not included in the convention it should be addressed by the COP in separate resolutions. In this sub-section the objectives, measures and timing in relation to the Ramsar Convention will be looked at in more detail.

i. The Objectives

There is no provision in the convention that clearly defines its main objective(s). However, the preamble states: '*Desiring* to stem the progressive encroachment on and loss of wetlands now and in the future'.[158] This 'desire' may be considered as the principle treaty objective. Article 1, paragraph 1 defines what should be considered to be a 'wetland'.[159]

In 1996, the COP developed and agreed upon the following additional objective, referred to as 'mission statement': 'The Convention's mission is the conservation and wise use of wetlands by national action and international cooperation as a means to achieving sustainable development throughout the world'. This mission statement forms part of the Strategic Plan 1997-2002 that was developed to further the implementation of the convention.[160]

At the COP10 in 2008, the Strategic Plan for the period 2009-2015 was agreed upon, which includes a slightly different mission: 'Conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world'.[161]

ii. Measures and Timing

There are many measures laid down in the convention that should be taken by a Contracting Party, of which the following are the most important:

- Suitable wetlands within its territory should be designated for inclusion in a List of Wetlands of International Importance (the List). Selection should be based on the significance of the wetlands in terms of ecology, botany, zoology, limnology or hydrology;[162]
- At least one wetland should be designated when signing or ratifying the convention;[163]
- Planning should be formulated and implemented so as to promote the conservation of the wetlands included in the List and as far as possible the wise use of wetlands in its territory;[164]
- Information about the ecological character of any wetland in its territory and on the List should be arranged, including changes as the result of technological developments, pollution or other human interference. This information shall be passed on to the Secretariat without delay;[165]
- Conservation of wetlands and waterfowl should be promoted by establishing nature reserves on wetlands, whether they are included in the List or not, and by providing adequately for their wardening;[166]
- If boundaries of a wetland included in the List are deleted or restricted, compensation should be found as far as possible for the loss;[167]
- Research and the exchange of data and publications should be encouraged and training of personnel promoted;[168]
- The increase of waterfowl populations on appropriate wetlands should be endeavoured through management;[169]
- Consultation with other Contracting Parties should take place especially in the case of a wetland extending over the territories of more than one Contracting Party or where a water system is shared by Contracting Parties and present and future policies concerning the conservation of wetlands and their flora and fauna should be coordinated and supported as far as possible;[170]
- Any alterations to the List or changes in character of wetlands included therein should be discussed at the next COP meeting.[171]

Over the years the COP has defined key terms such as 'wise use', 'sustainable utilisation' and 'ecological character'.[172] The measures laid down in the convention have been further clarified and developed and additional measures have been decided upon by means of resolutions and recommendations. The resolutions that are adopted at COP meetings may also include guidelines on specific subjects. Special documents have been prepared to advance the implementation of the convention such as the Strategic Plan 1997-2002,[173] the Strategic Plan 2003-2008,[174] and more recently the Strategic Plan 2009-2015.[175]

The following examples illustrate how the bodies of the convention have interpreted and elaborated upon many of the convention provisions.

In relation to Article 2, paragraphs 1 and 2 it was essential to define the term 'suitable wetlands' for 'inclusion in a List'.[176] Nine criteria have been developed by the COP to determine whether a wetland is of international importance.[177] Wetlands of International Importance under the Ramsar Convention are also referred to as Ramsar sites. To guarantee

the correct application of the nine criteria, the Strategic Framework and Guidelines for the future development of the List have been agreed upon.[178] When designating a wetland for inclusion in the List, Contracting Parties should provide specific information on the status of this site through the so-called Ramsar Information Sheet (RIS), a standardised format introduced in 1990.[179] For each candidate Ramsar site an RIS and an accurate map are needed before it can be included in the List. This base line information is essential to be able to monitor the site properly.[180] The RIS should be updated every six years or earlier in case of significant changes or additions to the wetland.[181]

In the Strategic Framework and Guidelines for the future development of the List,[182] it is also stated that when a Contracting Party intends to designate a new Ramsar site, the site in question does not need to be a protected area, nor does it need to become one after designation.[183]

Already at the first COP in 1980, Contracting Parties were advised to designate as many of their wetlands of international importance as possible for inclusion in the List.[184] More recently a target was set for 2015 to have 2,500 sites in the List, covering a total of 250 million hectares.[185] However, the overall extent of potential Ramsar sites is not clear. The Secretariat indicates that many Contracting Parties have long been reluctant to prepare an overview of potential sites, since they fear public pressure 'to do their environmental duty'.[186] BirdLife International as well as Wetlands International did carry out some work in this area, but results have been incomplete.[187]

Article 2, paragraph 5 and Article 4, paragraph 2 of the convention deal with the boundaries of a Ramsar site. Contracting Parties are permitted to delete or restrict boundaries of wetlands on the List in case of 'urgent national interests',[188] but should, 'as far as possible', compensate for the loss.[189] These provisions have been further clarified by the COP and will be discussed in more detail in sub-section 2.6 under 'derogations'.

Another provision that has been extensively elaborated upon by the COP is Article 3 of the convention. Article 3, paragraph 1 requires the Contracting Parties to conserve the wetlands in the List and to use their wetlands wisely. The term 'wise use' is defined under the convention,[190] but the term 'conservation' is not.[191] On inquiry it appears that 'conservation' is intended to mean 'maintenance of the ecological character of a site' and that the standard of maintenance of the ecological character of a site is perceived to be far higher for Ramsar sites than for other wetlands.[192] Furthermore, it is indicated by the Secretariat that 'conservation' and 'wise use' are considered to be 'almost the same' under the convention, but that in the case of conservation the emphasis is on the ecological value of the site, while in the case of wise use it is on sustainable use.[193] In the Annex to Resolution VII.11 it is stated that 'the act of designating (listing) under the convention a wetland as internationally important is an appropriate first step along a conservation and sustainable use pathway, the endpoint of which is achieving a long-term wise (sustainable) use of the site'.[194]

To assist the parties with the implementation of this provision, various handbooks have been developed over the years. This set of handbooks is now referred to as the Ramsar Toolkit and deals with issues such as the adoption of national wetland policies, the introduction of wetland inventory, monitoring, research, training, education and public awareness programmes and the development of integrated management plans. There are 17 volumes, all of which are based on COP resolutions.[195]

The handbooks are also important for the clarification and development of Article 3, paragraph 2 of the convention. This provision requires the Contracting Parties to arrange to be informed if the ecological character of any of its listed wetlands has changed, is changing

or is likely to change and to pass this information on to the bodies of the convention. The handbooks in relation to wetland inventory, assessment and monitoring as well as those that cover wetland management are relevant in this respect.[196]

The provision that deals with the establishment of nature reserves on wetlands has received less attention.[197] In Recommendation 4.4 the establishment of wetland reserves is promoted, while in Resolution IX.22 it is arranged that more extensive information should be made available concerning the level of protection of Ramsar sites.[198]

In Article 4, paragraph 3 of the convention it is laid down that Contracting Parties shall encourage research, exchange of data and publications concerning wetlands. It appears that this provision has not been substantially elaborated upon so far. The same goes for Article 4, paragraph 4, which requests Contracting Parties to make an effort to increase the waterfowl populations on their wetlands, although Resolution VIII.38 discusses the importance to select Ramsar sites for globally threatened waterbirds.[199]

The training of personnel in the area of 'wetland research, management and wardening' as laid down in Article 4, paragraph 5 was first dealt with in Recommendation 4.5 on Education and training. A more detailed follow-up was included in subsequent Communication, Education, and Public Awareness (CEPA) Programmes, although it should be noted that these programmes comprise a wider array of issues.[200] The Secretariat of the convention is actively supporting Contracting Parties in this area by organising workshops and seminars on how to use wetlands wisely.[201]

Article 5 of the convention focuses on the cooperation between Contracting Parties, especially in the case of shared wetlands. This provision has been further developed by a number of resolutions of which the most important are Resolution VII.19, in which the Guidelines for international cooperation under the Ramsar Convention can be found, and Resolutions VIII.30 and IX.7, which both deal with regional initiatives within the framework of the Ramsar Convention.[202]

Besides the measures mentioned above, many additional actions have been agreed upon that do not directly relate to any of the convention's provisions. An early and very significant example of this is the requirement for the Contracting Parties to submit national reports at least six months prior to each COP meeting. These national reports play a vital role in evaluating the implementation of the convention.[203]

Another remarkable initiative of the Ramsar COP has been the introduction of the so-called Montreux Record in 1990. In Recommendation 4.8 it is laid down that Ramsar sites that are threatened by changes in their ecological character should be added to the Montreux Record 'to identify priority sites for positive national and international conservation attention'.[204] To assist Contracting Parties with the management of these sites the Ramsar Advisory Mission was introduced,[205] which involves a site visit by a team of experts. Both facilities are available on a voluntary basis. The Montreux Record and Advisory Mission will be discussed in more detail in sub-sections 2.9 and 2.10. Ramsar sites that represent the opposite because of their exemplary management should be included in the San José Record.[206]

Other noteworthy additional measures are the development of the Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands[207] and the initiatives on dealing with invasive species[208] and climate change[209] in relation to wetlands.

At the COP6 meeting in 1996, the first Strategic Plan 1997-2002 was adopted.[210] The second Strategic Plan 2003-2008 was approved at the COP8 in November 2002.[211] Global

implementation targets for the period 2003-2005 were also identified and adopted at this COP meeting, resulting in a Work Plan 2003-2005[212] and a Work Plan 2006-2008.[213]

The latest Strategic Plan 2009-2015 was adopted at the COP10 meeting in 2008.[214] It includes the following five goals:

Goal 1. Wise use:
The wise use of all wetlands being achieved in all Parties.

Goal 2. Wetlands of International Importance:
Parties designating and managing Ramsar sites within their territories with a view to supporting an international network of Wetlands of International Importance.

Goal 3. International cooperation:
Parties developing their coherent national approaches to the implementation of the Ramsar Convention in such a way as to benefit from developing effective partnerships with related conventions and international agencies and with other Parties to the convention.

Goal 4. Institutional capacity and effectiveness:
Increasing success of the Convention in achieving the conservation and wise use of wetlands, as measured by agreed effectiveness indicators, and increased recognition of the Convention's achievements by other sectors of governments and civil society.

Goal 5. Membership:
All countries eligible for accession to have joined the Ramsar Convention by 2015.

The five goals are very similar to the five objectives in the previous Strategic Plan. To support the realisation of these five goals, 28 strategies have been defined, complemented with specific targets. The first three goals are often referred to as the 'three pillars of action'.

Although the Strategic Plan seems to suggest that certain measures should be implemented within its timeframe, this is actually not the case. The introduction of the Strategic Plan states that 'each Contracting Party is free to choose the extent to which it will implement the Strategic Plan, the resources it will allocate to the implementation, and the timeframes to be used'.[215]

A relatively new development is the use of effectiveness indicators as established in the fourth goal of the Strategic Plan. This development derives from the international community's agreement in 2002 to achieve a significant reduction of the current rate of biodiversity loss by 2010 at a global, regional and national level. This 2010 Biodiversity Target was adopted by the sixth Conference of the Parties (COP6) to the CBD.[216] Measuring and communicating progress is an essential requirement and it was therefore agreed by the CBD COP to introduce a range of indicators.[217] To contribute to the 2010 Biodiversity Target, the Ramsar COP adopted the following eight indicators in Resolution IX.1, Annex D:[218]

A. The overall conservation status of wetlands
B. The status of the ecological character of Ramsar sites
C. Trends in water quality
D. The frequency of threats affecting Ramsar sites

E. Wetland sites with successfully implemented conservation or wise use management plans
F. Overall population trends of wetland taxa
G. Changes in threat status of wetland taxa
H. The proportion of candidate Ramsar sites designated so far for wetland types/features

The Secretariat stated in relation to these indicators that the Contracting Parties should 'make good use of them as appropriate' and 'adapting them as necessary to suit national conditions and circumstances'.[219] However, other than the identification of these indicators, not much progress seems to have been made.

iii. Conclusion

Although not clearly singled out as the objective of the convention, the preamble's statement '*desiring* to stem the progressive encroachment on and loss of wetlands now and in the future' could be considered as such. The mission statements that were subsequently introduced by the COP are less specific and not very ambitious. The terms 'wise use' and 'conservation' are used in the latest mission statement in relation to all wetlands, which is somewhat confusing since 'conservation' is not clearly defined under the convention, only used in relation to Ramsar sites and not included in the goals of the Strategic Plan. The final part of the mission statement, 'a contribution towards achieving sustainable development throughout the world' is so indistinct that it could be included in practically all (environmental) treaties.

The measures as laid down in the convention lack clarity, precision and ambition. The COP has further interpreted and elaborated upon many of the provisions and some additional measures have been agreed upon. The introduction of national reports, and the Montreux Record and Advisory Missions are some positive examples of these. However, there are still some serious shortcomings that have not been properly addressed. Firstly, a comprehensive list of potential Ramsar sites is lacking, thereby limiting any pressure on Contracting Parties to designate new Ramsar sites. Secondly, no form of protection is required for Ramsar sites, which will complicate their conservation. Thirdly, two essential terms in the convention, 'conservation' and 'wise use', are not used consistently. One commentator correctly observes that the distinction between these terms 'has become blurred in a series of developments by the Conference of the Parties'.[220] It appears that in relation to the protection of Ramsar sites the emphasis has shifted from 'conservation' to 'wise use', which is not in line with Article 3, paragraph 1 of the convention. Fourthly, the Strategic Plan focuses on a number of provisions in the convention, while some other provisions such as Article 4, paragraph 1 on the establishment of nature reserves on wetlands and Article 4, paragraph 4 on the effort Contracting Parties should make to increase waterfowl populations on their wetlands, receive little attention. A justification for these choices has not been given.

No real commitment to a timeframe is required from the Contracting Parties in relation to their implementation of the convention. The introduction of the indicators in connection with the 2010 Biodiversity Target could be seen as a positive development, but its practical relevance has not yet fully manifested itself.

Based on these points, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.5 Element 5: Implementation

Benchmark: *For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.*

Although the supervision of the implementation of the convention is not one of its formal functions, the Secretariat has taken up this task from an early stage. The main source of information available to the Secretariat are the national reports that Contracting Parties should submit six months prior to each COP meeting.[221] It is noted by the Secretary General of the convention that this information is not considered to be very reliable.[222] Another issue is that not all Contracting Parties submit their national reports (on time).[223] Additional information is collected through the Ramsar Information Sheets and the occasional site visits. Information is also regularly received from third parties, usually when a Ramsar site is under threat.[224] The Secretariat and other bodies of the convention have reported their findings in relation to the implementation of the convention in various documents, which have been used for this assessment.

To determine whether 75% of the Contracting Parties have implemented the convention, the state of affairs regarding the execution of the following key measures by the Contracting Parties will be reviewed:

- The designation of suitable wetlands for inclusion in the List (accompanied by a map and a clear description of the boundaries),[225] and the status of the List's completion;
- The formulation and implementation of the planning in such a way that the conservation of wetlands in the List and the wise use of all wetlands in a territory are promoted;[226]
- The monitoring of the wetland(s) in the List to be able to inform the Secretariat without delay of any changes;[227]
- The compensation for any loss of wetland in case boundaries of a wetland in the List are deleted or restricted,[228] and the immediate communication about such action to the Secretariat;[229]
- The promotion of the establishment of nature reserves on all wetlands and their adequate wardening;[230]
- The increase of waterfowl populations on wetlands through management;[231]
- The promotion of adequate training of personnel;[232]
- The consultation with other Contracting Parties especially in the case of shared wetlands.[233]

The protection of wetlands under the convention starts with the designation by a Contracting Party of suitable wetlands for inclusion in the List. Although a Contracting Party only needs to designate one wetland when signing or ratifying the convention,[234] it derives from Article 2, paragraph 1, as well as from Recommendation 1.3 and further documents that as many wetlands as possible should be designated.[235] Nine criteria for the designation of Wetlands of International Importance have been developed to assist Contracting Parties with this task.[236] So far the number of Ramsar sites has remained below the targets set by

the COP. At COP8 it was found that only half the number of sites pledged at COP7 was designated.[237] The target set for COP9 was also not achieved; 2000 designated sites proved to be too ambitious.[238] The objective for 2010 is to have at least 2,500 sites in the List, covering a total of 250 million hectares.[239] However, the current number is 1,880 sites covering 185 million hectares.[240] The target for 2015 as laid down in the Strategic Plan 2009-2015 has remained unchanged: 2,500 sites, covering at least 250 million hectares.[241]

It seems that many states that have been Contracting Parties for over 15 years still have only designated a relatively small number of Ramsar sites.[242] Many Contracting Parties have not designated more than one or two sites.[243]

As indicated in sub-section 2.4, a comprehensive inventory of all potential Ramsar sites is lacking. It is therefore unclear how many wetlands should still be designated to complete the List.

Contracting Parties are also required to submit a Ramsar Information Sheet (RIS) as well as a detailed map for each new Ramsar site. The Annex to Resolution VIII.10 indicates that 66 Contracting Parties had not sent one or more (updated) RISs to the Secretariat.[244] At COP9 this number had increased to 104 Contracting Parties,[245] while for 41% of Ramsar sites (updated) RISs and/or adequate maps had not been supplied.[246] At the latest COP meeting in 2008 (COP10) the situation had deteriorated even further: for 1,057 Ramsar sites (58% of all sites) in 123 countries the (updated) RISs and maps had not been submitted.[247]

For the formulation and implementation of the planning in relation to the conservation of Ramsar sites and the wise use of wetlands,[248] two actions that Contracting Parties should take are of particular importance: the development and implementation of a national wetland policy as well as management plans for each Ramsar and other wetland site. The Guidelines for developing and implementing National Wetland Policies were prepared to help Contracting Parties with the drafting of a national wetland policy.[249] Contracting Parties may also include such policy in their national biodiversity strategies.[250] The National Reports' information of 2005 shows that 35% of the Contracting Parties are implementing such policy, and that 60% intend to do so in the future.[251] In 2008, the percentage of Contracting Parties implementing a policy had increased to 41%.[252] Guidelines have also been prepared to support Contracting Parties with their management planning for Ramsar sites and other wetlands.[253] From Resolution VIII.14 it becomes clear that 35% of the Contracting Parties have management plans in place or in preparation, but these plans concern Ramsar sites only.[254] The situation in 2008 does not show any improvement. It is reported that 26% of the responding Contracting Parties have developed and implemented management plans/strategies at all Ramsar sites.[255]

To be able to inform the Secretariat of any change or likely change of the ecological character of a Ramsar site,[256] regular monitoring of the site is essential.[257] At COP7 it became clear that for 37% of the Ramsar sites some form of monitoring regime is in place.[258] At the following COPs no percentage was given, but in Resolution VIII.8 of 2002 it is laid down that many Contracting Parties do not have monitoring mechanisms in place,[259] and this is repeated in Resolution IX.15 of 2005.[260] It is also indicated in the latter resolution that information concerning changes in the ecological character of Ramsar sites is often received from third parties and not from the Contracting Party itself.[261] It appears that the situation has not improved at the time of the COP10 meeting in 2008. Resolution X.13 indicates that 18 Contracting Parties 'have provided reports to the Secretariat, fully in line with Article 3.2',[262] and that due to the lack of reporting on this issue the STRP could not prepare a report on the status and trends in the ecological character of Ramsar sites.[263]

The provision of the convention dealing with the promotion of the establishment of nature reserves on all wetlands has never received much attention.[264] The status of the implementation of this provision has so far not been reported to the Secretariat and is therefore unknown. Resolution IX.22 determines that an extra datafield will be added to the RIS concerning the IUCN protection category of a Ramsar site.[265]

Article 4, paragraph 2 of the convention is the so-called derogation provision and should be considered in combination with Article 2, paragraph 5. These provisions are often implemented by Contracting Parties that are developed countries by means of special national and, in case of the EU, regional legislation. In the EU, for instance, the vast majority of Ramsar sites are also Special Protection Areas and/or Special Areas of Conservation and as such covered by the Wild Birds Directive and/or the Habitats Directive.[266] Ramsar sites in the developing countries are probably less well protected, but detailed information is lacking.[267]

As already indicated in the previous sub-section, the COP has not taken much action to implement the measure to increase waterfowl populations on wetlands through management.[268]

In order to adequately prepare the training of personnel on wetland issues,[269] each Contracting Party was requested to identify its training needs.[270] It appears that only 20% of the Contracting Parties responded to this request.[271] Nevertheless, the Secretariat has been organising training workshops and seminars in various regions. Furthermore, special training centres were established, for instance in The Netherlands and Panama.[272] One of the strategies in the latest Strategic Plan 2009-2015 is that at least half of the Contracting Parties have assessed their national and local training needs regarding the conservation and wise use of wetlands.[273]

The cooperation between Contracting Parties, especially in case of shared wetlands,[274] starts with an inventory of wetland systems that are shared with other Contracting Parties or non-parties. The next step is to share the management and monitoring of such wetlands. In Resolution IX.8 the Contracting Parties are requested to identify their transboundary wetlands,[275] which implies that at that time the implementation of this provision was still at an early stage. However, the Secretary General reports in 2008 that 53% of the Contracting Parties have identified their transboundary wetland systems and that 18% of the Contracting Parties have effective cooperative management in place.[276] The Ramsar Convention Manual indicates that some collaboration agreements are in place between Contracting Parties concerning the shared management of their transboundary wetlands.[277]

It already appeared from the Strategic Plan 2003-2008 that a choice was made to focus on the implementation of some of the measures laid down in the convention. This approach has not been changed in the latest Strategic Plan 2009-2015. The implementation of the 'wise use' concept for wetlands, the futher development of the List and the promotion of international cooperation have been chosen as priority issues and are referred to as 'the three pillars'. The COP9 (2005) Report of the Secretary General states on the implementation of the Strategic Plan 2003-2008 that 'so far only 8% of the global implementation targets listed in the Strategic Plan have been achieved',[278] and that 'it is likely that 36% will not be able to be achieved at all, with a further 33% unlikely to be achieved, with the remaining 23% only possibly able to be achieved'.[279] The COP10 (2008) Report of the Secretary General does not show much improvement.[280]

Several studies on the implementation of the Ramsar Convention in individual member states have been carried out in recent years. Farrier and Tucker, for instance, conclude in

relation to Australia's implementation of the convention that it has been focusing mainly on the designation of wetlands of international importance for inclusion in the List, largely neglecting the implementation of the wise use concept for all wetlands.[281] Extensive research by Verschuuren into two transboundary Ramsar sites, the Scheldt River Estuary designated by Belgium and The Netherlands and the Orange River Mouth designated by South Africa and Namibia, reveals that 'in practice, the Ramsar Convention's role is mainly limited to the overarching concepts. More specific obligations from the Convention, or soft law documents, such as the Handbooks, hardly play a role'.[282] Gardner and Connolly arrive at similar conclusions in relation to the Ramsar sites in the USA.[283]

Conclusion

Supervising the implementation of the convention is not one of the Secretariat's formal functions, although it has taken up this task to some extent. At each COP meeting, the Secretariat reports on the implementation of the convention. Unfortunately, its main source of information, the national reports as prepared by the Contracting Parties, are often found to be incomplete and unreliable. In many cases the RISs that should be available for each Ramsar site appear to be lacking or out of date. The occasional visits to sites on the Montreux Record as well as the contacts with third parties, especially environmental NGOs, may provide some valuable additional information.

It appears that the implementation of the convention is still at an early stage, as confirmed by the Secretary General in the latest COP reports. The target for 2010 to have at least 2,500 sites in the List will not be achieved, RISs and maps have not been submitted for many sites, while only a minority of Contracting Parties have national wetland policies and management plans in place for their Ramsar and other wetland sites and monitoring of the Ramsar sites is insufficient. Not much progress has been made either on the implementation of the other key measures, including the establishment of nature reserves and the increase of waterfowl populations on wetlands and the training of personnel and the cooperation between the Contracting Parties on wetland issues. Since an inventory of all potential Ramsar sites is lacking, it is not clear when the List will be be completed.

It may not come as a surprise that the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.6 Element 6: Reservations, Derogations and Other Exceptions

Benchmark: *For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).*

This sub-section deals with the exceptions that can be made by the Contracting Parties to the convention and the consequences of these exceptions for its effectiveness. In this study exceptions are divided in reservations, derogations and other exceptions.[284]

i. Reservations

Contracting Parties are not restricted by the Ramsar Convention to make reservations. It appears that some Contracting Parties have indeed made a reservation, but these are

mostly of an international political nature. Most reservations concern Article 9, paragraph 2 of the convention in which it has been laid down that 'any member of the United Nations or of one of the Specialized Agencies or of the International Atomic Energy Agency or Party to the Statute of the International Court of Justice may become a party to this convention'. Some states have made a reservation regarding this clause because they are of the opinion that it contradicts the principle of sovereignty of states.[285] Syria has made a reservation that 'accession to this Convention shall not under any circumstances be taken to mean that Syria recognizes Israel …'.[286]

ii. Derogations

Article 2, paragraph 5 of the convention allows a Contracting Party to delete or restrict the boundaries of its Ramsar site because of 'urgent national interests'. Should it do so, it would have to inform the Secretariat 'at the earliest possible time'.[287] Subsequently, Article 4, paragraph 2 of the convention states that such Contracting Party should, 'as far as possible', compensate for the loss. Two resolutions in relation to this issue were adopted at COP7 inviting the Standing Committee to prepare a draft guidance for the interpretation of these two articles.[288] An extensive draft guidance on how to interpret the terms 'urgent national interests' and 'compensation' was subsequently prepared by the IUCN Environmental Law Centre and presented in 2000.[289] The rules laid down in this draft guidance, which also covers a procedure for the implementation of the guidelines, are quite specific and strict. The final version of the guidance, agreed upon at COP8, is considerably less specific and largely noncommittal.[290] Even so, the guidance states that when invoking Article 2, paragraph 5 to delete or restrict the boundaries of a Ramsar site it is 'an appropriate first step' that a Contracting Party carries out an environmental assessment, which should be made in full consultation with all stakeholders 'whenever possible',[291] and that in case of threats of serious or irreversible damage to the wetland the precautionary principle applies.[292]

To date no boundaries of Ramsar sites have been deleted based on the 'urgent national interests' provision, but there have been several occasions whereby a restriction of boundaries took place, of which the following are some striking examples. The case concerning the Lower Scheldt River in Belgium dates back to 1987. The Belgian government gave its consent to the construction of a container terminal on this Ramsar site and consequently the boundaries of the site were redefined reducing the site's area by 30 ha. Compensation was offered in the form of 2,000 ha of wet grassland habitat.[293]

A case that probably attracted more attention, since this Ramsar site was also designated as a Special Protection Area under the EU Wild Birds Directive,[294] and as a Site of Community Importance under the EU Habitats Directive,[295] concerns the Mühlenberger Loch in Germany. This site is one of Europe's largest freshwater tidal mudflats and when the Hamburg Senate in 1997 decided to fill 170 ha of its 675 ha to enable Airbus Industries to expand their existing production site, its decision met a lot of opposition.
However, after the German Court declined to grant an injunction to stop the plans and the European Commission gave the green light, the filling of part of the site went ahead. A Ramsar Advisory Mission was carried out in 2001, to advise on compensatory measures.[296] The Ramsar Secretariat has yet to receive the revised RIS as well as the report on the compensatory measures from the German Government.[297]

The start of the construction in 2000 of an oil terminal in the Central Wetlands of Kolkheti in Georgia is another 'urgent national interests' case. A Ramsar Advisory Mission took place in 2005 providing advice on compensatory measures. In 2008 the government announced that compensatory measures were implemented and an updated RIS was submitted.[298]

A more recent case concerns the Ramsar site Kyliiske Mouth in Ukraine. In 2002, the government of Ukraine decided to create a deep water navigation way through the Danube delta affecting this Ramsar site. Again a Ramsar Advisory Mission took place focusing on the evaluation of different courses for the waterway. Another mission was undertaken in 2008 and the final decision of the government of Ukraine is still pending.[299]

In some cases the fact that a wetland is designated a Ramsar site may help to prevent developments on the site. It appears that this has happened to plans to create a new airport on the Thames estuary and marshes, although the UK government has yet to react formally on the issue to the Secretariat.[300]

The COP has recognised the possibility that restriction or deletion of the boundaries of (parts of) Ramsar sites could also be required due to causes other than those covered by the 'urgent national interests' provision. It is for instance possible that a Ramsar site has never met the criteria for designation in the first place. A guidance for addressing these cases has been agreed upon.[301] These situations are not directly relevant to this study and will therefore not be taken into account.

iii. Other Exceptions

The convention has been amended twice, first in 1982 by the Paris Protocol, which entered into force on 1 October 1986 and subsequently in 1987 by the Regina Amendments, which entered into force on 1 May 1994.[302] States that have acceded to the convention since 1 October 1986 are considered to have acceded to the Paris Protocol as well, unless they have clearly stated their intention not to do so. It appears from the list of Contracting Parties as prepared by UNESCO (the depository of the convention) that almost 50% of the Contracting Parties have not accepted the Regina Amendments, which means that the far-reaching amendments to Articles 6 and 7, strengthening the position of the COP, do not apply to them.[303]

iv. Conclusion

The reservations that Contracting Parties have made to the Ramsar Convention are limited in number and not incompatible with the object and purpose of the convention. The fact that the Regina Amendments have not been officially accepted by many of the Contracting Parties is a matter that needs urgent attention of the COP, although it does not appear to seriously limit the effectiveness of the convention.

Article 2, paragraph 5, the 'urgent national interest' provision, is of a more critical nature since it could potentially very negatively affect the conservation of Ramsar sites. So far, this provision has only been invoked in a few cases, albeit with serious consequences for the Ramsar sites involved. Since it remains a potential weakness in the convention it needs, and so far receives, the Secretariat's continual supervision.

Taking all these points into consideration, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.7 Element 7: Monitoring

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).*

The importance of the availability of scientific information was recognised from the start. It is stated in the convention that the Contracting Parties shall encourage research and the exchange of data and publications regarding wetlands and their flora and fauna.[304] The COP can request international bodies to prepare reports and statistics on matters that are affecting wetlands and are essentially international in character.[305] Furthermore, Contracting Parties are required to send experts to the COP meetings.[306] Finally, and most importantly, Contracting Parties must be informed about any (likely) change in the ecological character of a Ramsar site and the reason for the change, which information has to be passed on immediately to the Secretariat.[307] This implies a certain level of monitoring in relation to Ramsar sites.

An important first step is that Contracting Parties have to submit a completed Ramsar Information Sheet (RIS) and map for each Ramsar site.[308] The RIS is a standardised document containing the site's baseline data.[309] At the COP6 meeting in 1996 it was discussed that the RISs and maps, were 'of inadequate quality'.[310] Contracting Parties were subsequently requested to rectify this before the end of 1997.[311] However, more than a decade later it appears that this problem has still not been fully addressed.[312]

The terms 'ecological character' and 'change in ecological character' of Ramsar sites and wetlands in general have been further clarified.[313] Resolution VI.1 was the first resolution that discussed the term 'change in ecological character' of a Ramsar site in more detail. More recently, the STRP has presented a further clarification of this concept, which has been adopted by the COP.[314] The current position is that to determine the conservation status of wetlands, three types of action are required: wetland inventory, wetland assessment and wetland monitoring.[315] The STRP describes these actions as follows: 'wetland (baseline) inventory is used to collect information to describe the ecological character of wetlands; assessment considers the pressures and associated risks of adverse change in ecological character; and monitoring, which can include both survey and surveillance, provides information on the extent of any change'.[316]

Guidance on each of these actions has been provided by the STRP, for instance in the form of the Framework for Wetland Inventory,[317] various wetland assessment tools,[318] and the Framework for Designing a Wetland Monitoring Programme.[319] In the latter, 'monitoring' is defined as 'the process of measuring change in ecological character in any wetland over a period of time'.[320] It is further stated in the guidance that monitoring can be carried out at different levels of intensity, depending on available funding and/or technology.[321]

The importance of appropriate monitoring and management of Ramsar sites is also emphasised in the latest Strategic Plan 2009-2015 of the convention.[322] Strategy 2.6 requires the Contracting Parties to 'monitor the condition of Ramsar sites and address negative changes in their ecological character, notify the Ramsar Secretariat of changes affecting Ramsar sites, and apply the Montreux Record, if appropriate, and Ramsar Advisory Mission as tools to address problems'.[323]

A Ramsar site is placed on the so-called Montreux Record in case it is clear that changes in ecological character have occurred, are occurring, or are likely to occur as a result of

technological developments, pollution or other human interferences, but only with permission of the Contracting Party concerned.[324] Usually, this procedure is initiated by the environmental NGOs. Special technical assistance could be given by a Ramsar Advisory Mission to the Contracting Parties with Ramsar sites on this record.[325]

Although the guidelines that have been prepared on monitoring are extensive, the implementation by the Contracting Parties of the activities proposed by the STRP is still at an early stage. In Resolution VIII.8 it is stated that Contracting Parties do not have mechanisms in place to be informed about any change in ecological character of any of their Ramsar sites and they are urged to take action.[326] In Resolution VIII.10 it is noted that few Contracting Parties have reported any issues concerning changes or likely changes of the ecological character of one or more of their Ramsar sites in their national reports as required by the convention.[327] The Secretary-General writes in his report for COP9 (2005) that since 2002 102 Ramsar sites have been added to the list of sites in which human-induced negative changes have occurred, are occurring or are likely to occur.[328] It is also stated that in most cases this information does not come initially from the Contracting Parties, but from third parties.[329] It is further reported that Contracting Parties often do not respond at all to specific inquiries by the Secretariat on the status of Ramar sites.[330] It appears from the relevant COP10 documents covering this issue that the situation has not much changed by 2008.[331] In Resolution X.13 it is reported that due to lack of relevant information the STRP has not been able to prepare a report for the COP10 meeting on the status and trends regarding the ecological character of Ramsar sites.[332]

To help improve the situation in relation to the monitoring of Ramsar sites and other wetlands, the IOPs have launched a monitoring initiative in 2006 called Watching the Wetlands.[333] It is, however, not clear when this initiative becomes operational.

To be able to focus more clearly on the effectiveness of the convention in realising its objectives, an initial set of eight 'outcome-oriented' indicators has been agreed upon in 2005 at COP9.[334] This includes indicators such as 'the overall conservation status of wetlands', 'the status of the ecological character of Ramsar sites', 'trends in water quality' and 'wetland sites with successfully implemented conservation or wise use management plans'.[335] The indicators are also relevant in relation to the assessment of the 2010 Biodiversity Target as initiated under the CBD.[336] Contracting Parties are supposed to include these indicators in their national reports, as a result of which more detailed information on the status of their wetlands in general and Ramsar sites in particular may be provided. One of the objectives in the Strategic Plan 2009-2015 is that the indicators are fully implemented by 2015.[337]

Besides the information received from the Contracting Parties, other sources of information on the status of wetlands can also be accessed by the bodies of the convention. Several UN bodies, many scientific and research bodies as well as NGOs frequently report on issues concerning the quality of wetlands.

Of all the NGOs involved in wetland protection and conservation, the IOPs of the convention are particularly active in programmes to monitor and assess changes in wetlands and/or their species all over the world. Wetlands International, for instance, was one of the sponsors of 'Waterbirds around the world'.[338] This publication from 2007 gives an overview of the status of the world's waterbirds and their habitats. One of its key findings is that waterbird declines caused by loss and degradation of wetland habitats are widespread in most regions of the world. The IUCN has established a Freshwater Biodiversity Unit and cooperates with thousands of specialised scientists to carry out status assessments,[339] while

the WWF has developed the Living Planet Index, which measures trends in the Earth's biodiversity and includes the freshwater species population index,[340] and BirdLife International has identified the important bird areas.[341]

UNESCO began its World Water Assessment Programme (WWAP) in 2000 with the intention to (1) assess the state of the world's freshwater resources and ecosystems, (2) identify critical issues and problems, (3) develop indicators and measure progress towards achieving sustainable use of water resources, (4) help countries to develop their own assessment capacity and (5) document lessons learnt and publish a World Water Development Report at regular intervals (three years).[342] The 3rd World Water Development Report was published in 2009 under the title 'Water in a Changing World'.[343] One of the many conclusions in the report is that 'worldwide, water observation networks provide incomplete and incompatible data on water quantity and quality for managing water resources and predicting future needs – and these networks are in jeopardy of further decline'.[344]

The Global International Waters Assessment (GIWA) has been an assessment initiative that operated under the responsibility of the UNEP and was funded by the GEF. It started in 1999 for a period of four years with the objective to present a comprehensive and integrated assessment of international waters in different regions.[345] A total of 66 sub-regions were identified. The GIWA Final Report was published in 2006.[346] Focusing on transboundary waters, it also highlights the insufficiency of environmental monitoring in both developed and developing regions.[347]

Another important international initiative was launched by the UN Secretary-General in 2001: the Millennium Ecosystem Assessment (MA). This international assessment aims to meet the needs of decision-makers for scientific information on the consequences of ecosystem change for human wellbeing. A special 'Wetlands and Water' synthesis was published in 2005 for the COP of the Ramsar Convention, which has been involved in its preparation from the start.[348] In relation to the monitoring of wetlands, the MA makes the following observations: 'There is insufficient information available on the extent of all wetland types being considered in this report [ ] to document the extent of wetland loss globally. Although the accuracy of this figure has not been established due to an absence of reliable data, it is well established that much of the loss of wetlands has occurred in the northern temperate zone during the first half of the twentieth century. The loss and degradation of inland wetlands have been reported in many parts of the world, but there are few reliable estimates of the actual extent of this loss. The information available on the distribution of inland waters is on the whole better for North America than for many other areas'.[349] It is the intention to repeat this exercise regularly (once every 5 to 10 years).[350]

A relatively new development is the monitoring of wetlands from space. In 2003 the European Space Agency (ESA) started its GlobWetland project.[351] It appears that through Earth observation important activities such as the inventory, monitoring and assessment of wetlands could be facilitated. The Ramsar STRP is involved in this development with a view to improve the monitoring of wetlands. The Chair for ESA's Earth Science Advisory Committee has stated that 'thanks to ESA's support for GlobWetland and its data dissemination, the situation of monitoring single, several or nation-wide wetlands has recently improved rapidly'.[352] In the same interview it was noted that 'it is a shame that no global wetland monitoring exists 35 years after the Ramsar Convention has been signed' and that 'this failure is due to the neglect of satellite observations, to slow political action and to the absence of an inter-governmental body (as exists for climate change in the

Intergovernmental Panel on Climate Change) which would form the basis of decisions of Conferences of the Parties (COPs) to the Ramsar Convention'.[353]

The Environmental Performance Index of 2008, published by the Yale Center for Environmental Law & Policy, indicates in the chapter on Biodiversity & Habitat that 'basic information on the distribution and health of different aquatic biomes, such as salt marshes, seagrass beds, headwater streams, and wetlands, is still missing'.[354]

Conclusion

The monitoring of wetlands by the Contracting Parties has so far been less than adequate. Many Contracting Parties have not submitted the essential baseline information for each Ramsar site in the RIS format and do not have sufficient monitoring mechanisms in place. Of course, the monitoring of Ramsar sites, as required by Article 3, paragraph 2 should be distinguished from the monitoring of other wetlands. The latter is not required under the convention. However, in practice there appears to be little difference.

The available assessments of the status of wetlands as discussed earlier in this sub-section do not present a pretty picture, but have probably contributed to a much better understanding of the extent of the challenge.

It should therefore be concluded that the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.8 Element 8: Communication, Education and Public Awareness

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.*

The Ramsar Convention itself does not cover this element, with the exception of Article 4, paragraph 5, in which it has been laid down that the Contracting Parties should promote training in personnel competent in the field of wetland research, management and wardening. In 1990, the first Recommendation in relation to this subject was adopted, in this case emphasising the importance of education and training in the conservation and wise use of wetlands.[355] At a later stage, communication and public awareness were added and in 1999, the COP adopted the convention's first Outreach Programme 1999-2002.[356] This programme outlines 'actions to promote communication, education and public awareness to support implementation of the Convention on Wetlands', and is also known as the CEPA programme. At the COP8 meeting, a second CEPA programme for the period 2003-2008 was adopted.[357] The three general objectives of this CEPA programme are:

1. To gain acceptance of the value and effectiveness of wetland-related communication, education and public awareness (CEPA) processes at all levels throughout the Convention;
2. To provide support and tools for the effective national and local implementation of wetland-related communication, education and public awareness (CEPA) activities;
3. To mainstream the wise use of wetlands within society and enable people to act.

One of the guiding principles of the programme is 'to motivate people to appreciate the values of wetlands so that they become advocates for wetland conservation and wise use and may act to become involved in relevant policy formulation, planning and management'.[358]

Specific CEPA targets that were set for the Contracting Parties in the CEPA Programme 2003-2008 and in the Work Plan of the convention for the period 2006-2008 include the nomination of a CEPA national focal point, the development and implementation of a national Ramsar CEPA Action Plan and the establishment of at least one wetland education centre at a Ramsar site.[359]

An important tool introduced to support the Contracting Parties with the implementation of the CEPA programme is Handbook 5 of the Ramsar Toolkit. The title of this handbook is Participatory skills: Establishing and strengthening local communities' and indigenous people's participation in the management of wetlands.[360]

To further the implementation of the CEPA programme, the STRP was requested to set up an CEPA expert working group.[361] Due to lack of funding this working group did not materialise. Instead, an CEPA specialist group was set up by Wetlands International, which also advises the Ramsar COP on CEPA issues. This CEPA specialist group started its activities in spring 2003.[362]

In 2005, the COP instructed the Standing Committee to establish an CEPA Oversight Panel to monitor and report on the implementation of the CEPA programme.[363] The CEPA specialist group should from then on be regarded as 'a reference group for recommendations and products identified through the work of the STRP'.[364]

Meanwhile, the bodies of the convention as well as the Contracting Parties have initiated several CEPA activities. Education and training are priorities and various training programmes relevant to wetland management have been developed and executed. Many wetland wise use training workshops and seminars, often organised by the Secretariat, have been held in a considerable number of countries.[365] In recent years, the education and training activities have become more regional in character and Ramsar Regional Centres for Training and Research have been set up in Panama City (Panama), covering the Western Hemisphere, and in Ramsar (Iran), covering Western and Central Asia.[366] To further the creation of wetland education centres, the Ramsar COP has teamed up with Wetland Link International (WLI), which was set up by the Wildfowl and Wetlands Trust (WWT). Wetland Link International is a global network of wetland centres involved in CEPA activities. Through this network, expertise can be shared between wetland centres worldwide.[367]
In relation to the specific CEPA targets that were set for the Contracting Parties, the Secretariat has published the following results in its 2008 CEPA implementation overview based on the information submitted by 129 Contracting Parties.[368] Of these Contracting Parties 80% have designated their CEPA national focal point,[369] 14% have developed an CEPA Action Plan (18 Contracting Parties),[370] and 36% have established wetland education centres in Ramsar sites (46 Contracting Parties).[371]

Also in 2008, the COP adopted a new CEPA Programme for the period 2009-2015, which does not substantially differ from the previous programme.[372]

The communication and public awareness activities that are initiated by the Secretariat vary from issuing press releases and launching publications and promotional material to presenting the Ramsar Wetland Conservation Awards. The website of the convention deserves special mentioning, since it is very comprehensive and provides up-to-date information.[373] The annual World Wetland Day was initiated in 1997 to draw attention to the

importance of wetlands and the threats they face. Every year, special events are organised in many countries to celebrate this day.[374]

Conclusion

It took the Ramsar COP some time to seriously address this issue, but with the adoption of the first CEPA programme, the promotion of communication, education and public awareness in relation to wetlands has been put firmly on the agenda.

The Contracting Parties have only just started with the implementation of the actions outlined in the CEPA programme 2003-2008 and, with the exception of the designation of Ramsar CEPA national focal points, little progress has been made since the start of the first Outreach Programme in 1999. The fact that only very few Contracting Parties have prepared a Ramsar CEPA Action Plan is disappointing.

This is in contrast to the constructive activities of the bodies of the convention and especially those of the Secretariat. Examples are the comprehensive Ramsar website, the introduction of World Wetland Day and the efforts to improve the level of wetland education.

However, it will still take some time before three-quarters of the Contracting Parties have implemented a national Ramsar CEPA programme and the contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.9 Element 9: Incentives

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.*

The Ramsar Convention Manual poses the following question: 'Why do nations join the Ramsar Convention?[375] The answer provided lists most of the incentives that are discussed in this sub-section. The following incentives are considered to be important for states to join and implement the convention.

i. The Financial Resources Incentive

In 1990, the Ramsar COP established the Ramsar Small Grants Fund (SGF) to assist Contracting Parties and candidate Contracting Parties with the implementation of the convention. Eligible Contracting Parties are developing countries as well as countries with economies in transition. Three types of project proposals can be distinguished: (1) those that contribute to the implementation of the Strategic Plan, (2) those that provide emergency assistance for Ramsar sites, and (3) those that assist candidate Contracting Parties to progress towards accession.[376] Funding is limited to CHF 40,000 per project,[377] and as a consequence only small scale projects are considered. From 1991 to 2008, 227 projects have been funded in more than 50 different countries involving a total amount of about CHF 7,5 million.[378] The COP has admitted that most Contracting Parties need more substantial funding than the SGF can offer, but points out that although the SGF amounts are small the implementation of projects is very cost effective, the range of eligible projects is wide and the application procedures are simple.[379]

It appears that the number of projects could have been substantially higher, but due to a lack of funds only a limited number of suitable projects did actually receive funding. For instance, between 1991-1999 113 projects received funding, while no funding was available for another 122 valuable projects.[380] In the triennium 2006-2008 only 17 out of 94 eligible projects could be funded,[381] and in 2009 there seemed to be no funding at all for 29 approved projects. Only after considerable efforts by the Secretariat four projects could go ahead.[382] The SGF depends on voluntary contributions from developed countries, NGOs and the private sector, and the amounts pledged are simply not sufficient.

In Resolution VII.5, a Critical Evaluation of the SGF was presented and it is pointed out in this document that 'a renewed effort is required to attract greater financial support with longer term guarantees'.[383] At COP8, Resolution VIII.29 was agreed upon in which it was laid down that a special Ramsar Endowment Fund would be established to be able to guarantee the necessary financial resources for the longer term and that it would become operational when the Standing Committee had agreed on its *modus operandi* and the threshold level of capital, set at CHF 5 million, would be guaranteed.[384] At the next COP, it became clear that the Standing Committee had not reached agreement on the *modus operandi* and that the capital threshold could not be realised. This resulted in the retraction of Resolution VIII.29 with the request to the Standing Committee to find an alternative funding mechanism preferably similar to that of Wetlands for the Future Fund.[385] No significant progress on this issue was achieved at the COP10 meeting in 2008.[386]

The Wetlands for the Future Fund was established in 1996 by the Ramsar Secretariat, the U.S. Department of State and the U.S. Fish and Wildlife Service with the objective to promote the conservation and wise use of wetlands in the Neotropics and Mexico.[387] The USA provides most of the funding, which amounts to about USD 250,000 per year.[388] From 1996-2006, a total number of 225 projects were sponsored.[389] The maximum amount granted per project is USD 20,000, while the applicant has to contribute at least 50% of the sum needed.[390] There are 26 Contracting Parties that could apply for funding as well as 6 non-Contracting Parties that could receive funding in relation to their accession to the convention.[391] The fund provides assistance in areas such as wetland training and capacity building, policy development and the creation of management plans.[392]

The Swiss Grant for Africa dates back to 1989 and is granted by the government of Switzerland to support the implementation of the convention in Africa. The annual donation is usually between CHF 110,000 and CHF 165,000 and over and above Switzerland's regular annual contribution to the convention.[393]

To support the CEPA activities of the Contracting Parties it was decided at COP7 to set up a voluntary fund for the Convention's Outreach Programme (now CEPA Programme).[394] In Resolution VIII.31 the Secretariat is requested to 'undertake specific efforts' to find financial resources for this fund.[395]

Financial support for Ramsar projects may also come from external sources. It is indicated in the Ramsar Manual that Ramsar staff is involved in a number of wetland projects in Africa funded by external sources such as the GEF, government agencies, Ramsar's International Organisation Partners (IOPs) and companies such as the Danone Group, Banrock Station Wines and Point Africa (a French air transport company).[396] The Secretariat reported that 52% of the Contracting Parties have received assistance with the implementation of the convention from one or more of the IOPs (the amount of funding is unknown).[397] The Danone Group appears to be the major private sector donor by making substantial funds available for various field projects.[398]

Of all external funding sources, the GEF probably has most to offer, and the Ramsar COP has sought to build relations with the GEF since 1993.[399] Although the GEF was established to support projects related to biodiversity, desertification and climate change, the Ramsar Convention, unlike for instance the CBD, is not singled out specifically. A representative of the Ramsar Convention is now invited to the GEF Council as an observer,[400] but Ramsar's Secretary General has stated recently that 'cooperation with the GEF is still elusive'.[401]

Finally, it should be noted that the financial resources incentive is also relevant to Contracting Parties that are developed countries. A recent survey among staff working with U.S. Ramsar sites focusing on the benefits of a Ramsar designation revealed that the increased funding opportunities, for instance from government, NGOs or the private sector, were seen as one of the most important benefits.[402]

ii. The International Assistance Incentive

Based on Article 3, paragraph 2 of the convention, Contracting Parties have the obligation to inform the Secretariat if the ecological character of one of their wetlands included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. The wetland concerned will be included in the Montreux Record, but only with the approval of the Contracting Party. The benefits of inclusion in the Montreux Record were defined by the Contracting Parties as follows:

— Demonstrating national commitment to resolve the adverse changes would assist in their resolution;
— Highlighting particularly serious cases would be beneficial at the national and/or international level;
— Positive national and international conservation attention would benefit the site; and/or
— Inclusion would provide guidance in relation to the allocation of resources available under financial mechanisms.[403]

Once the problems are solved the site will be removed from the record, but, again, only with the permission of the Contracting Party involved.[404]

The Contracting Party that has a Ramsar site on the Montreux Record may request the Secretariat to send a Ramsar Advisory Mission to the site. The objective of such a mission is to provide assistance in solving the problems or countering the threats that have led to the inclusion in the record. The team that visits the site will draft a report with recommendations. This report may in some cases form the basis for further financial assistance.[405]

The Secretariat of the Ramsar Convention, backed by the Dutch government, has also been active in the area of capacity building. The Dutch government initiated a special advisory board, which has now become the Ramsar Advisory Board on Capacity Building and supports capacity building activities within Ramsar. One of this board's aims is to assist Contracting Parties in developing their own capacity building programmes.[406]

As early as 1994, international wetland courses for managers were conducted by a specialised institute in the Netherlands facilitating a large number of participants. More

recently, a regional approach was chosen and regional Ramsar training centres have been set up in Panama and Iran.[407]

Furthermore, additional training activities are being organised by the five IOPs of the Ramsar Convention.[408]

iii. The Cooperation Incentive

The importance of cooperation between Contracting Parties on wetland issues is stated in Article 5 of the convention. Contracting Parties are supposed to consult with each other about the implementation of the convention. This is especially relevant where water systems are shared or wetlands are transboundary.[409] In practice, two forms of cooperation can be distinguished concerning transboundary Ramsar sites. In some cases two or more Contracting Parties agree to share the management of transboundary Ramsar sites, for instance by signing a memorandum of cooperation.[410] It is also possible that designation of a Ramsar site as a transboundary site takes place, which gives the cooperation between Contracting Parties a more formal character. In both cases the Secretariat is willing to assist the Contracting Parties with activities such as gathering and reviewing information on these wetlands.[411]

Other forms of cooperation between the Contracting Parties have developed over the years. Resolution 4.4 of the COP introduced the twinning of Ramsar sites situated in different states as a means to improve cooperation between Contracting Parties with similar sites or sites linked by migration routes. France and Romania, for instance, started twinning the Camargue and the Danube Delta sites in 1992.[412] A twinning agreement may include subjects such as the exchange of information and expertise, the use of cartography and modern technology as well as the development of management plans, educational facilities and public awareness programmes.[413]

The Mediterranean Wetlands Initiative (MedWet) is an early example of a more formalised form of regional cooperation within the framework of the Ramsar Convention. It was introduced in 1992 as a 'coordination mechanism for wetland activities in the Mediterranean Basin' with the intention to involve all stakeholders. A Mediterranean Wetlands Committee was set up that includes representatives of the 25 Mediterranean governments and a MedWet Coordination Unit was established in Athens. Similar initiatives have now emerged for West Africa, the High Andean, the Pacific Islands, Western and Central Asia and the Western Hemisphere.[414] To support these initiatives, the COP established the Guidelines for the development of regional initiatives in the framework of the Convention on Wetlands.[415] At the COP meeting in 2005, the COP formally endorsed many of these initiatives.[416]

iv. The Information Incentive

The incentive to obtain and to share information concerning wetlands can also be found in the convention.[417] Over the years the bodies of the convention, especially the STRP, have provided the Contracting Parties with extensive information to assist them with the conservation and wise use of their wetlands. The Ramsar Handbooks for the Wise Use of Wetlands, better known as the Ramsar Toolkit, are an important example. However, the practical value of this information to Contracting Parties appears to be questionable. Two studies into the use of handbooks and other documents made clear that the target groups,

such as wetland managers, are not always well informed about the existence of this information or how to use it.[418] The STRP is committed to address this issue.[419]

v. The Marketing Incentive

One of the reasons why states should join the convention according to the Ramsar Manual is that it 'brings increased publicity and prestige for the wetlands designated for the List of Wetlands of International Importance'.[420] At first, this incentive did not receive much attention from the COP, but this changed with the establishment of the San José Record at COP8.[421] The purpose of the San José Record is 'to focus attention upon examples of effective management and exemplary practices implemented at Ramsar sites and other wetlands, including the process used to develop management plans and information about their costs, if available, and to make those plans, practices, and personal contacts available as examples and resources to other practitioners'.[422] Although initially approved by the COP, resistance against the San José Record by a number of Contracting Parties has been growing and it appears that this initiative is now dead.[423]

Meanwhile, several Contracting Parties have indicated that the Ramsar hallmark is useful to increase the number of tourists. In Japan, for instance, the Ministry of the Environment has launched the Ramsar Site Ecotourism Project. Travel agencies are invited to join this project with the intention to increase visitor numbers and at the same time create public awareness of the importance of conservation and wise use of Ramsar sites.[424] The website of the U.S. National Ramsar Committee (USNRC) indicates that one of the benefits of listing is that it 'can bring economic benefits to surrounding areas due to increased tourism, fishing and recreation'.[425] The result of a recent U.S. survey studying the impact of Ramsar designation on wetlands in the U.S. is more modest on this point. It appears that although Ramsar designation can lead to more attention from scientists as well as tourists, 'the vast majority of visitors [to a Ramsar site] were unaware of a particular site's international status'.[426] Surveys carried out in Canada and Africa show a similar result: Ramsar site managers are of the opinion that a better promotion of Ramsar sites is necessary.[427]

vi. Conclusion

The Ramsar Convention offers the following five incentives to Contracting Parties, the financial resources incentive, the international assistance incentive, the cooperation incentive, the information incentive and the marketing incentive.

The Montreux Record and the Ramsar Advisory Mission have been discussed in relation to the international assistance incentive, but will appear again in the next sub-section dealing with compliance. Some Contracting Parties may look upon the inclusion of one of their wetlands in the Montreux Record as an incentive, while others may associate it with an embarrassing failure to properly manage their wetlands themselves. For those who consider inclusion as a positive step to help them to address the problems their Ramsar site is facing, the support offered by the bodies of the convention will undoubtedly be helpful.

The assistance that is available in terms of capacity building is impressive and Contracting Parties could greatly benefit from the wetland training opportunities on offer.

The cooperation incentive also appears to be a valuable incentive to the Contracting Parties. Several forms of cooperation have been established over the years, such as the

shared management of transboundary Ramsar sites, the twinning of Ramsar sites as well as several regional initiatives within the Ramsar framework.

The information available to Contracting Parties on all issues concerning wetlands is substantial, although there are strong indications that its active use by the relevant target groups is rather limited.

The marketing incentive is clearly underdeveloped. Ramsar sites are usually not as well known to the general public as for instance World Heritage sites,[428] and clearly lack their aura. There appears to be much room for improvement in this area and it is therefore unfortunate that the initiative of the San José Record, although initially adopted by the COP, did not receive enough support from the Contracting Parties.

Last but not least, the convention does offer a financial resources incentive in the form of the Small Grants Fund. Additionally, there are some other funds available, such as the Swiss Grant for Africa and the Wetlands for the Future Fund. Unfortunately, the level of funding is very limited and as a consequence many proposed projects have not been carried out. It appears that the Contracting Parties that are developed countries are unwilling to substantially increase their (very modest) financial support to the convention, while the fact that the Ramsar COP has no formal ties with the GEF, one of the most important sources of external funding for biodiversity-related projects, makes this issue even harder to address.

Based on all the available information it can only be concluded that, although some of the incentives are useful to the Contracting Parties, the COP is not in a position to offer a powerful financial resources incentive that would make a real difference to the Contracting Parties that are developing countries, and as a consequence the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.10 Element 10: Compliance and Enforcement

Benchmark I: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.*

Benchmark II: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

To be able to assess the Contracting Parties' compliance with and enforcement of the Ramsar Convention on the basis of these benchmarks several points have to be taken into account. Firstly, compliance with and enforcement of the convention at the national level. Secondly, the supervisory measures the Ramsar Convention has available at the international level. Finally, the supervision of this compliance and enforcement and the documentation thereof by the Secretariat. As already indicated in Chapter III, the

international dispute settlement procedures that might be available under the convention will be mentioned, but are not taken into account in the overall assessment.[429]

i. Compliance with and Enforcement of the Ramsar Convention at the National Level

At the start of this paragraph it should be noted that since the convention's score on implementation was 'unsatisfactory',[430] it is highly unlikely that it would perform satisfactory as regards to compliance with and enforcement of the convention by the Contracting Parties.

As indicated in Chapter III, sub-section 5.10, it is the obligation of the state that national laws, regulations, policies and other measures related to the implementation of the convention are observed. Without proper implementation of the convention it would not be realistic to expect this obligation to be fulfilled. Nevertheless it is still relevant to look at this issue in more detail.

The Ramsar Convention suffers from the fact that its measures are not very specific. As a consequence, many Contracting Parties seem to overlook the legislative nature of this convention and consider it more as an advisory body. The U.S. National Ramsar Committee, for instance, explains that 'Ramsar is not a regulating entity, nor is it a United Nations Convention' and that 'the Ramsar Convention provides a framework for voluntary international cooperation for wetland conservation'.[431] Until recently, the website of the Dutch Ministry of Agriculture, Nature and Fisheries used to describe the measures under the Ramsar Convention as primarily moral (rather than legal) obligations. Birnie, Boyle and Redgwell have stated in relation to the Ramsar Convention that 'the general nature of its provisions has given rise to problems of interpretation and weakness of obligations.[432]

The application of the convention in the national courts appears to be limited and the weakness of its obligations has been mentioned as the main reason for this. The convention has for instance been tested on several occasions before the highest administrative court in the Netherlands (Council of State) with mixed results. Occasionally, the court has indirectly included the convention in its decision,[433] but more often its provisions have been brushed aside as too vague.[434]

In a case before the Indian court the Ramsar Convention appears to have played a more significant role. The decision of the High Court could be explained as giving legal effect to the obligations of the convention.[435] The case concerned the preservation of the Ramsar site Salt Lake Swamp in Calcutta. The court noted that 'India is a contracting party to the Ramsar Convention…under which she is obliged to promote the conservation of wetlands habitat in her territory'.[436]

Another important judgement in relation to the Ramsar Convention was given by the Federal Court of Australia in 2004.[437] It concerned the Gwydir Wetlands in New South Wales, one of Australia's Ramsar sites. Part of this wetland is owned by a farmer, who decided to clear and plough it, and sow it with wheat. The farmer knew that his actions would destroy the ecological character of this protected wetland. Australia introduced the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) under which Ramsar sites are specifically protected,[438] and based on this Act the farmer and his company were fined AUD 450,000 and directed to rehabilitate the site.[439]

The most remarkable judgement to date concerns the Ramsar site 'Het Lac' situated on Bonaire, part of the Netherlands Antilles, an autonomous part of the Kingdom of the Netherlands. Plans to build a resort adjacent to 'Het Lac' resulted in a visit by the Secretary

General of the Ramsar Convention in April 2006 to assess the situation. He concluded that the development would appear to be inadvisable, and that in case the Bonaire government would pursue its plans a full environmental impact assessment (EIA) should be carried out. Omitting this would mean a breach of the obligations under the Ramsar Convention. The developer of the resort provided the Bonaire government with an EIA report that seemed grossly inadequate. This did, however, not prevent the Bonaire government from approving the plans. Next, a local NGO petitioned the case to the governor of the Netherlands Antilles who reviewed the local government's decision to establish whether it was in line with Dutch and international law. The governor subsequently quashed the decision stating that it was in breach of the Ramsar Convention especially since the EIA report was not prepared according to Ramsar guidelines. The government of Bonaire appealed this decision to the Crown, which is advised by the Council of State, the highest administrative court in the Netherlands. One of the main issues at stake was whether or not the EIA requirement under the Ramsar Convention would be legally binding, since it is not a requirement laid down in the convention, but only appears in COP resolutions or the so-called soft law. The Crown decided that Ramsar's EIA requirement is indeed legally binding and used two arguments to reach its decision: (1) in case a convention text is unclear, which is the case here, the use of soft law is necessary to arrive at a correct interpretation of the convention's obligations, and (2) the resolutions and recommendations have all been accepted unanimously by the COP of the Ramsar Convention in which the Netherlands participates as a Contracting Party. The decision by the Crown can be described as innovative and far-reaching.[440]

ii. Supervisory Measures regarding the Ramsar Convention at the International Level

In Chapter III of this study four supervisory measures that are frequently used in international environmental treaties were discussed: periodic reporting by the Contracting Parties, fact-finding and research by treaty institutions and others, inspection by treaty institutions and the non-compliance procedure.[441] Two of these measures are available under the Ramsar Convention: periodic reporting and fact-finding.

There are some reporting requirements in the convention. Additions to, deletions or restrictions of Ramsar sites should be reported to the Secretariat,[442] as well as any change in the ecological character of a wetland.[443] Alterations to the List or changes in character of wetlands included therein are discussed at the COP meetings.[444] The outcome of this discussion is made known to the Contracting Party concerned.[445]

As of 1984, Contracting Parties have to prepare national reports on their implementation of and compliance with the convention and send these to the Secretariat six months prior to each COP meeting.[446] These national reports are now the most important sources of information and are made public once they have been submitted to the Secretariat.[447] A specific format is used for these national reports and a database has been created that enables the Secretariat to analyse the implementation status of the actions included in the Work Plan of the convention.

The Contracting Parties' track record in submitting their national reports in a timely manner has been quite good. It is stated on the Ramsar website that 'the Ramsar Convention enjoys the highest percentage of NRs received of all the environment-related conventions'.[448] For the COP7 meeting, only three of the Contracting Parties failed to submit their national reports on time.[449] For the COP8 meeting in November 2002, five Contracting Parties did not submit their national reports on time, while 129 did.[450] Of the

146 Contracting Parties in 2005, 118 submitted their national reports on time for COP9.[451] However, the Secretary General indicated that the information included in these reports is far from reliable.[452] For COP10, a new format for the national report was prepared that should be more practical to use and better harmonised with those used by other conventions.[453] Before the COP10 meeting, national reports were submitted by 142 of the 158 Contracting Parties,[454] but only 129 managed to do this on time for the preparation of the report of the Secretary General for this meeting.[455] The Secretariat has offered to provide feedback on first drafts of Contracting Party's national reports.[456]

The second form of reporting is through the Ramsar Information Sheet (RIS). A RIS should be submitted for each Ramsar site and must contain all relevant data of that site. However, it appears that of the responding Contracting Parties (129 out of 158) only one-third have submitted all required updates to the Secretariat,[457] and that the RIS information that is put forward is often incorrect.[458]

Compliance with the reporting requirement in Article 3, paragraph 2 of the convention that in case the ecological character of a Ramsar site has changed, is changing or is likely to change such information shall be passed without delay to the Secretariat, is questionable as well. The Secretary General indicates in various reports that this information is usually not received from the Contracting Party itself, but rather from third parties, such as communities, scientific bodies or NGOs.[459]

The Ramsar Advisory Missions (RAMs), which commonly take place if a Ramsar site is included in the Montreux Record, can be placed in the fact finding category.[460] After consultation with the Contracting Party concerned, a team of experts visits the site and prepares an advisory report that is made public. Since these missions are only advisory in character and always with the permission of the Contracting Party the term 'inspection' is not appropriate.

These missions in combination with the inclusion in the Montreux Record are supposed to activate the Contracting Party involved. The issues relating to the Ramsar sites on the Montreux Record will be discussed at the COP meetings,[461] and recommendations can be made to the Contracting Parties concerned.[462]

Although some Contracting Parties may look upon these instruments as incentives,[463] other Contracting Parties, especially those that are developed countries, are more likely to consider them to be somewhat coercive.

However, there is little indication that the Montreux Record and the RAMs have a substantial stimulating effect on the Contracting Parties concerned. As mentioned above, it is usually not the Contracting Party itself, as requested by the convention, but a third party who passes on the information that ecological changes have occurred, are occurring, or are likely to occur at a Ramsar site, as a result of technological developments, pollution or other human interference. Furthermore, it appears that in many cases the inclusion in the Montreux Record and the RAM did not bring the Contracting Parties to address the problems. A case in point is that of the 50 sites included in the Montreux Record as of September 2009, 40 have been registered since the first half of the 1990s, of which 28 already since 1990, the starting year of the record.[464] Many of these sites are located in developed countries. An example is the Ramsar site Schorren van de Beneden Schelde in Belgium. It was designated as a Ramsar site in 1986 and included in the Montreux Record in 1990. As discussed by Verschuuren in his article on this and other wetlands, Belgium does not seem to perceive the inclusion in the record to be an issue that needs urgent addressing.[465]

Under the Ramsar Convention, compliance mechanisms as inspection by treaty institutions or a compliance procedure are not available. In relation to the latter the Secretariat indicates that such a procedure would never be acceptable to the Contracting Parties.[466]

iii. Supervising Compliance and Enforcement by the Secretariat of the Convention

For the supervision by the Secretariat of the implementation of and compliance with the convention by the Contracting Parties a database has been created to enable the Secretariat to analyse the information provided by the Contracting Parties in their national reports. The result of this analysis is laid down in a report that is presented by the Secretary General at each COP meeting. However, the reliability of the information in the national reports on which the Secretary General's report is based is questionable. The Secretariat does identify Contracting Parties that have not presented their national reports on time and/or not updated their RIS information and/or maps.

Moreover, the Secretariat regularly issues an up-to-date overview of the Ramsar sites included in the Montreux Record with the date of inclusion. The reports of all RAMs are also available on the website of the convention.

The Secretariat is not in a position to monitor the application of the Ramsar Convention in the national courts, but indicates that it would wish to be able to do so.[467] Lack of resources is the likely reason preventing it from doing this.

iv. International Dispute Settlement Procedures

There is no provision dealing with the settlement of disputes in the Ramsar Convention.

v. Conclusion

A soft approach has been chosen with regard to the issues of compliance with and enforcement of the obligations under the Ramsar Convention and Contracting Parties are coaxed rather than forced into compliance.

Since the implementation of the convention by the Contracting Parties is still at an early stage, compliance with and enforcement of the convention by at least three-quarters of the Contracting Parties has not been reached. It appears that the Contracting Parties often understate the importance of the convention by underlining its general nature.

The convention has not played a significant role in the national courts so far. However, the three cases in India, Australia and the Netherlands Antilles show that it is not impossible for the convention to feature more prominently.

The sources of information are the national reports and the RISs from the Contracting Parties, data from third parties such as environmental NGOs and the advisory missions by experts. The majority of the Contracting Parties send their national reports to the Secretariat on time. However, the reliability of the information contained in these reports is dubious, while the equally important RISs are often not up-to-date. The fact that the information concerning ecological changes of a Ramsar site usually originates from third parties rather than from the Contracting Parties as required by the convention shows a further lack of compliance.

There is no mechanism available for the inspection of sites. An advisory mission only takes place with the permission of the Contracting Party. A non-compliance procedure has not been developed nor is this anticipated.

Based on the available information it should be concluded that the level of compliance with and enforcement of the obligations under the convention by the Contracting Parties, as well as the supervising mechanisms that the convention has currently in place to encourage compliance are clearly insufficient. As a consequence the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

3. The Effectiveness of the Ramsar Convention: Conclusion

The assessment of the Ramsar Convention results in a 'satisfactory' rating on only three elements of the Effectiveness Test, whereas the score on the other seven is 'unsatisfactory'.

The three elements recording a 'satisfactory' are 'Parties', 'Environmental NGOs and Other Stakeholder Groups' and 'Reservations, Derogations and Other Exceptions'. The Ramsar Convention set out with just seven Contracting Parties, so the current number of 159 is certainly remarkable and the benchmark for this element is easily met. The close relationship between the bodies of the convention, especially the Secretariat, and the environmental NGOs and other organisations is another factor contributing positively to the effectiveness of the convention. The long established cooperation with the private sector is a further plus.

A 'satisfactory' rating is also obtained on the 'Reservations, Derogations and Other Exceptions' element. Contracting Parties have made a limited number of reservations, but these do not have a significant negative effect on the realisation of the convention's objectives. Under the convention, Contracting Parties are also allowed to delete or restrict the boundaries of wetlands that are on the List of Wetlands of International Importance, but only when there is an 'urgent national interest' and the loss is compensated for. Over the years the boundaries of a small number of wetlands on the list have been restricted, but deletions have not taken place so far.

However, the Ramsar Convention's scores on the other seven elements of the Effectiveness Test are 'unsatisfactory'. The elements in question are: 'Institutional Framework', 'Objectives, Measures and Timing', 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness', 'Incentives' and 'Compliance and Enforcement'.

Although the institutional framework of the convention is up and running, its functioning, as exemplified by the Secretariat and the STRP, is hampered by a lack of financial resources. Not only are these bodies hard-pressed to professionally carry out all the tasks expected from them, the inadequacy of the financial budget also stops them from engaging in additional activities of a more pro-active nature. As a result, the convention receives an 'unsatisfactory' on this element.

It gets the same rating on the 'Objectives, Measures and Timing' element. This is the consequence of the facts that the convention's objective is rather vague and the measures (including the COP resolutions) lack clarity, precision and a binding timeframe for their realisation. It is especially disappointing that it has not been made clear which potential sites still should be added to the List of Wetlands of International Importance.

The assessment of the 'Implementation' of the convention by the Contracting Parties shows a serious lack of progress. The introduction of the strategic plan has not made much

difference. The supervision by the Secretariat can only be described as passive. It is obvious that the benchmark for this element has not been met and an 'unsatisfactory' score is the result.

The same goes for the 'Monitoring' element. The monitoring of wetlands on the List is still insufficient despite all efforts by the STRP to support the Contracting Parties to improve this situation. The wetland assessments carried out by the IOPs and international organisations are of great importance, but it is up to the individual Contracting Parties to establish appropriate monitoring procedures.

The bodies of the convention have acknowledged the importance of 'Communication, Education and Public Awareness' and the COP has already adopted its third CEPA programme. The CEPA activities initiated by the Secretariat are impressive and it is positive that many Contracting Parties have nominated CEPA national focal points. However, the implementation of the CEPA programme is at an early stage and just a few Contracting Parties have developed a national Ramsar CEPA Action Plan. An 'unsatisfactory' rating is therefore unavoidable.

The Ramsar Convention does not escape an 'unsatisfactory' score on the 'Incentives' element either. This is mainly the result of the absence of a meaningful financial resources incentive. The Small Grants Fund and other wetland funds or grants are much in demand by Contracting Parties that are developing countries, but, despite the relatively limited amounts involved, the level of funding is insufficient to finance more than a modest number of projects annually. Furthermore, it is evident that the marketing incentive, which could really make a difference for the Ramsar sites, is not used to potential. It is saying a lot that an initiative such as the San José Record has stranded. Although it might have given the well-managed Ramsar sites much needed positive attention, the Contracting Parties preferred them to stay low-profile.

The convention is also judged 'unsatisfactory' on the 'Compliance and Enforcement' element, which will not come as a surprise after its 'unsatisfactory' rating on the 'Implementation' element. Without proper implementation, adequate compliance with and enforcement of the convention by the Contracting Parties is most unlikely. Although impressive discipline is shown by the Contracting Parties in submitting their national reports in a timely manner, the reliability of the contents of these reports has been called into question by the Secretariat. Compliance with other reporting requirements, for instance concerning the RISs and ecological changes of a Ramsar site, is disappointing. The development of the Montreux Record and the introduction of the advisory missions did little to improve the Ramsar sites under pressure. Of the 50 Ramsar sites in the Montreux Record, 40 have been registered there since the first half of the 1990s. A non-compliance procedure has not been developed and is not anticipated.

The scores on seven of the ten elements are still 'unsatisfactory' and, as a consequence, the Effectiveness Test confirms that this convention is **not yet effective**.

[1] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Wetlands and Water Synthesis* (Washington, 2005) 3.
[2] See Commission of the European Communities, *Communication from the Commission: Halting the Loss of Biodiversity by 2010—And Beyond: Sustaining ecosystems for human well-being*, Brussels, 22 May 2006, COM(2006)216 final, 5.
[3] Project MAR: MAR are the first three letters of the word used in four languages to refer to this type of habitat: marsh, marisma, marais and maremma.
[4] See for more information on the history of the convention Matthews G., *The Ramsar Convention on Wetlands: Its History and Development* (Gland, 1993) and De Klemm C. and Créteaux I., *The Legal Development of the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (Gland, 1995).
[5] See Resolution VIII.25 (2002), Annex, paragraph 16; in the latest Strategic Plan 2009-2015 the first three goals are the same three pillars of action (Resolution X.1 (2008), pages 7-8).
[6] Ramsar Convention, Article 4, paragraph 1.
[7] Ramsar Convention, Article 2, paragraph 1.
[8] Ramsar Convention, Article 2, paragraph 2.
[9] See Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands (Ramsar, Iran, 1971), third edition, as adopted by Resolution VII.11 (1999) and amended by Resolutions VII.13 (1999), VIII.11 (2002) and VIII.33 (2002), IX.1 (2005), Annexes A and B and X.20 (2008); see Box I for criteria.
[10] Ramsar Convention, Article 5.
[11] Now Ramsar Convention, Article 10 bis.
[12] Extraordinary Conference of the Contracting Parties, 28 May to 3 June 1987, Regina, Canada; see for more information sub-section 2.2.
[13] Resolution VI.14 (1996).
[14] Resolution VIII.25 (2002).
[15] Resolution X.1 (2008).
[16] See sub-section 2.4 for more detailed information on the Strategic Plan 2009-2015.
[17] See www.ramsar.org (accessed 31 December 2009).
[18] Ibid.
[19] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Wetlands and Water Synthesis* (Washington, 2005) 3 and 21.
[20] Ramsar Convention, Article 1, paragraph 1.
[21] See Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands (Ramsar, Iran, 1971), third edition.
[22] Resolution IX.1 (2005), Annex A.
[23] Recommendation 3.3 (1987), Annex.
[24] Resolution IX.1 (2005), Annex A.
[25] Resolution VI.1 (1996).
[26] Ramsar Convention, Article 1, paragraph 2.
[27] Australia, Finland, Norway, Sweden, South Africa, Iran and Greece.
[28] See www.ramsar.org (accessed 31 December 2009).
[29] Resolution X.1 (2008), Annex, Goal 5, Membership.
[30] Ibid., page 18.
[31] Ramsar Convention, Article 9, paragraph 2.
[32] See Document Ramsar COP10 DOC.6 (2008), paragraph 85.
[33] Ramsar Convention, Articles 6 and 8 respectively.
[34] Resolution 3.3 (1987) and Resolution 5.5 (1993) respectively.
[35] Written reply to questionnaire Ramsar Secretariat by Mr. Dwight Peck, Communications Officer, 22 October 2007.
[36] Ibid.
[37] Resolution X.5 (2008), paragraph 12.
[38] Ramsar Convention, ex Article 6, paragraph 1.
[39] Ramsar Convention, ex Article 6, paragraph 2.
[40] Ramsar Convention, Article 10 bis.

41 Extraordinary Conference of the Contracting Parties, 28 May to 3 June 1987, Regina, Canada.
42 These changes concerned Ramsar Convention, Article 6, paragraphs 1 and 2.
43 Ramsar Convention, Article 6, paragraph 4.
44 Ramsar Convention, Article 6, paragraphs 5 and 6; Article 7, paragraph 2 also changed slightly.
45 See sub-section 2.6.
46 Ramsar Convention, Article 7, paragraph 2.
47 Ramsar Convention, Article 7, paragraph 1.
48 See www.iisd.ca/ramsar/cop10.
49 The Rules of Procedure are available on www.ramsar.org.
50 Rules of Procedure, Rule 6 and 7.
51 Rules of Procedure, Rule 7, paragraph 1; see also sub-section 2.3.
52 Resolution 3.3 (1987).
53 Resolution VII.1 (1999).
54 Ibid., paragraph 6.
55 Ibid., paragraph 17.
56 Ibid., paragraph 20.
57 Ibid., paragraph 20 (f).
58 Subgroup on Finance, Subgroup on COP10, Subgroup on the Strategic Plan, Management Working Group, CEPA Oversight Panel, STRP Oversight Committee and Ad Hoc Working Group on Administrative Reform.
59 Resolution VII.1 (1999), paragraph 19.
60 Recommendation 1.10 (1980).
61 See DOC. C.4.15 (1990), Annex.
62 See De Klemm C. and Créteaux I., *The Legal Development of the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (Gland, 1995) Chapter VII, 1 (c).
63 Resolution IX.10 (2005), paragraph 9.
64 Written reply to questionnaire Ramsar Secretariat by Mr. Dwight Peck, Communications Officer, 22 October 2007.
65 Resolution X.5 (2008).
66 Resolution IX.10 (2005), paragraph 7.
67 Currently Mr. Anada Tiéga.
68 See www.ramsar.org (accessed 22 April 2010).
69 Ramsar Convention, Article 8, paragraph 2.
70 Ibid., paragraph 2 (a).
71 Ibid., paragraph 2 (b).
72 Ibid., paragraph 2 (c).
73 Ibid., paragraph 2 (d).
74 Ibid., paragraph 2 (e).
75 See for instance Report of the Secretary General on the implementation of the Convention at the global level, Ramsar COP9 DOC.5 (2005), paragraph 5; and Ramsar COP10 DOC.18 and 19 (2008).
76 See Ramsar COP10 DOC.19 (2008), paragraphs 19 and 42.
77 Ibid., Annex 4, paragraphs 17-20.
78 Ibid., Annex 1.
79 Resolution X.2 (2008), paragraph 19.
80 Resolution 5.5 (1993).
81 The five IOPs are the IUCN, Wetlands International, BirdLife International, the WWF and the IWMI.
82 See Resolution X.9 (2008).
83 The STRP's work plan 2009-2012 was approved by the 40th meeting of the Standing Committee.
84 See for instance Resolution VIII.26 (2002), paragraph 8 'set priorities for STRP due to limited capacity and resources' and Resolution IX.1 (2005), paragraph 4 in which it becomes clear that the IUCN and the WWF support the STRP financially.
85 Resolution VII.2 (1999), paragraph 8(a).
86 See for overview Administrative Authorities www.ramsar.org.
87 Extraordinary Conference of the Contracting Parties, 28 May to 3 June 1987, Regina, Canada.
88 Ramsar Convention, Article 6, paragraph 5.
89 Ramsar Convention, Article 6, paragraph 6.

[90] See Resolution X.2 (2008), paragraph 15.
[91] Resolution VI.17 (1996).
[92] Ibid., paragraph 11(d).
[93] See Resolution X.2 (2008).
[94] See Earth Negotiation Bulletin, 'Summary of the Tenth Conference of the Parties to the Ramsar Convention on Wetlands: 28 October – 4 November 2008' page 4-5 available on www.iids.ca/ramsar/cop10.
[95] See Resolution X.2 (2008), Annex I; the approved core budget is CHF 4,539,698 for 2009, CHF 4,721,286 for 2010, CHF 4,910,137 for 2011 and CHF 5,106,543 for 2012.
[96] CHF 4,090,861 for 2006, CHF 4,206,277 for 2007, CHF 4,365,094 for 2008.
[97] Ramsar COP10 DOC.17 (2008).
[98] Ibid.
[99] Ramsar Convention, Article 6, paragraph 2(e).
[100] Ramsar Convention, Article 8, paragraph 1.
[101] Resolution VII.19 (1999), Annex.
[102] Resolution VIII.25 (2002).
[103] Resolution X.1 (2008).
[104] In this study the Rules of Procedure adopted by the 10th Meeting of the Conference of the Parties in 2008 are used.
[105] Rules of Procedure, Rule 7, paragraph 1.
[106] Ibid., Rule 7, paragraph 3.
[107] Ibid., Rule 7, paragraph 4.
[108] Ibid., Rule 6, paragraph 1.
[109] Wetlands International, BirdLife International and the IUCN.
[110] Recommendation 5.6 (1993).
[111] Ibid.
[112] Resolution VII.3 (1999), Annex.
[113] Resolution IX.16 (2005).
[114] Examples are Wetland Link International of the Wildfowl and Wetlands Trust, The Society of Wetland Scientists, The Nature Conservancy, Eurosite, Center for International Earth Science Information Network, International Association for Impact Assessment, Ducks Unlimited, LakeNet, Global Nature Fund.
[115] See Ramsar Toolkit.
[116] See Memorandum of Cooperation between the Ramsar Convention and Wetlands International, Annex, Operational Objective 1: Inventory and assessment.
[117] Resolution VII.2 (1999).
[118] Objective 7.2, Action 7.2.1.
[119] Resolution VII.19 (1999), §2.3.1.
[120] See Resolution X.1 (2008), Strategy 3.1, page 14 and Resolution VIII.25 (2002), Operational Objective 13.
[121] Resolution VII.4 (1999).
[122] Ibid., paragraphs 2 and 3.
[123] Resolution X.11 (2008).
[124] Ibid., paragraph 1.
[125] See www.ramsar.org (accessed 27 April 2010).
[126] Decision III/21 (1996) of the CBD COP.
[127] See Chapter VII for more details.
[128] See www.ramsar.org (accessed 27 April 2010).
[129] About 40 sites are both Ramsar site and World Heritage site; see www.ramsar.org for the list of sites (accessed 27 April 2010).
[130] Resolution VII.19 (1999), Annex, paragraphs 58-59.
[131] Ibid.
[132] Ibid., paragraph 22.
[133] CBD Decision VII/26 (2004).
[134] See Resolution IX.5 (2005).
[135] See for more information Chapter VIII, sub-section 2.3.
[136] www.cbd.int/blg.

[137] The Memoranda of Cooperation and the Joint Programmes of Work are available on the Ramsar website www.ramsar.org.
[138] Resolution VIII.3 (2002), paragraph 1.
[139] Resolution VII.4 (1999), paragraph 13.
[140] See Resolution VIII.3 (2002), paragraph 10 and Resolution X.11 (2008), paragraph 11.
[141] Resolution VII.19 (1999), Annex, paragraph 25.
[142] See Resolution X.1 (2008), Annex, Strategy 3.1 and Resolution VIII.25 (2002), Operational Objective 13.1, action 10; see also Resolution VI.10 (1996) on Cooperation with the Global Environment Facility (GEF) and its implementing agencies: The World Bank, UNDP and UNEP.
[143] See for more detailed information sub-section 2.9.
[144] September 2002.
[145] February 2006.
[146] Resolution X.1 (2008), Annex, Strategy 1.10 Private Sector; the same 'strategy' was also included in the Strategic Plan 2003-2008, Resolution VIII.25 (2002), Operational Objective 7.1.
[147] Resolution X.12 (2008), Annex.
[148] Ibid., second objective.
[149] Ibid., paragraphs 7-24.
[150] The Memorandum of Understanding is available on www.ramsar.org; see also sub-section 2.9.
[151] See for more information www.ramsar.org (accessed 28 April 2010).
[152] See Bowman M., 'The Ramsar Convention: Has it Made a Difference?' in Stokke O. and Thommessen O. (Eds.), *Yearbook of International Co-operation on Environment and Development 2002/2003* (London, 2002) 61-8.
[153] See Chapter III, sub-sections 4.4 and 5.4.
[154] Ramsar Convention, Preamble, fourth recital.
[155] See Matthews G., *The Ramsar Convention on Wetlands: Its History and Development* (Gland, 1993) Chapter 1.
[156] See Bowman M., 'The Ramsar Convention on Wetlands: Has it Made a Difference?' in Stokke O. and Thommessen O. (Eds.), *Yearbook of International Co-operation on Environment and Development 2002/2003* (London, 2002) Introduction.
[157] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Wetlands and Water Synthesis* (Washington, 2005) ii.
[158] Ramsar Convention, Preamble, fourth recital.
[159] See also Box I for definition of 'wetlands'.
[160] Resolution VI.14 (1996).
[161] Resolution X.1 (2008), Annex, page 7; a very similar mission was laid down in the previous strategic plan 2003-2008 (Resolution VIII.25 (2002).
[162] Ramsar Convention, Article 2, paragraphs 1 and 2; see also Article 2, paragraph 5.
[163] Ramsar Convention, Article 2, paragraph 4.
[164] Ramsar Convention, Article 3, paragraph 1.
[165] Ramsar Convention, Article 3, paragraph 2.
[166] Ramsar Convention, Article 4, paragraph 1.
[167] Ramsar Convention, Article 4, paragraph 2.
[168] Ramsar Convention, Article 4, paragraphs 3 and 5.
[169] Ramsar Convention, Article 4, paragraph 4.
[170] Ramsar Convention, Article 5.
[171] Ramsar Convention, Article 8, paragraph 2.
[172] See Box I.
[173] Resolution VI.14 (1996).
[174] Resolution VIII.25 (2002).
[175] Resolution X.1 (2008).
[176] Ramsar Convention, Article 2, paragraph 1.
[177] See Box I for criteria.
[178] Resolution VII.11 (1999).
[179] Recommendation 4.7 (1990).

180 As required by the Ramsar Convention, Article 3, paragraph 2; Resolution VI.13 (1996) contains all the details concerning the RIS later amended by Resolutions IX.1 (2005), IX.6 (2005), IX.21 (2005) and IX.22 (2005).
181 Resolution VI.13 (1996).
182 In this study the third edition of the guidelines is used as adopted by Resolution VII.11 (1999) and amended by Resolutions VII.13 (1999), VIII.11 (2002), VIII.33 (2002), IX.1 (2005), Annexes A and B and X.20 (2008).
183 Ibid., paragraph 50.
184 Recommendation 1.3 (1980).
185 Resolution X.1 (2008), Annex, Strategic Plan 2009-2015, Strategy 2.1.iii.
186 Written reply to questionnaire Ramsar Secretariat by Mr. Dwight Peck, Communications Officer, 22 October 2007.
187 BirdLife has identified potential Ramsar sites in Africa, Asia and Europe; reports are available on www.birdlife.org.
188 Ramsar Convention, Article 2, paragraph 5.
189 Ramsar Convention, Article 4, paragraph 2.
190 See also Box I.
191 See for more information on this subject Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 588 and 655.
192 Written reply to questionnaire Ramsar Secretariat by Mr. Dwight Peck, Communications Officer, 22 October 2007.
193 Ibid.
194 Resolution VII.11 (1999), Annex, paragraph 23.
195 All handbooks are available on www.ramsar.org.
196 See also Resolutions VIII.8 (2002) Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention and Resolution VIII.14 (2002) New Guidelines for management planning for Ramsar sites and other wetlands.
197 Ramsar Convention, Article 4, paragraph 1.
198 Resolution IX.22 (2005), paragraph 8.
199 Resolution VIII.38 (2002), paragraph 15.
200 See Resolutions VII.19 (1999), VIII.31 (2002) and X.8 (2008).
201 See Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) Chapter 4.5.
202 Resolution VII.19 (1999), Resolution VIII.30 (2002) and Resolution IX.7 (2005).
203 See Recommendation 2.1 (1984); see also sub-sections 2.5 and 2.10.
204 Resolution 5.4 (1993), recital 6.
205 Recommendation 4.7 (1990).
206 Resolution VIII.15 (2002); see also sub-section 2.9.
207 Resolution VII.7 (1999); see also sub-section 2.5.
208 Resolutions 5.6 (1993), VII.14 (1999) and VIII.18 (2002).
209 Resolutions VIII.3 (2002) and X.24 (2008).
210 Resolution VI.14 (1996).
211 Resolution VIII.25 (2002).
212 Resolution VIII.26 (2002).
213 Adopted by the 34th meeting of the Standing Committee.
214 Resolution X.1 (2008), Annex.
215 Resolution X.1 (2008), paragraph 6.
216 CBD Decision VI/26 (2002), Part B, paragraph 11.
217 See Chapter VIII, sub-sections 2.4, 2.5 and 2.7 for more details.
218 See for more information Ramsar COP10 DOC.34 (2008).
219 Ramsar COP10 DOC.23 (2008), paragraph 1.
220 See Kim R., 'National Implementation of the Ramsar Convention and the Legal Protection of Coastal Wetlands in Korea' (2006) unpublished masters thesis, University of Auckland, 11; available on www.birdskorea.org.
221 Recommendation 2.1 (1984).

222 See Ramsar COP9 DOC.5, paragraph 16; see also Lanchbery J., 'Long-Term Trends in Systems for Implementation Review in International Agreements on Fauna and Flora' in Victor D., Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 67.
223 110 out of 146 Contracting Parties on time in 2005 and 129 out of 158 Contracting Parties on time in 2008.
224 See Ramsar COP10 DOC.7 (2008), paragraph 19.
225 Ramsar Convention, Article 2, paragraph 1.
226 Ramsar Convention, Article 3, paragraph 1.
227 Ramsar Convention, Article 3, paragraph 2.
228 Ramsar Convention, Article 4, paragraph 2.
229 Ramsar Convention, Article 2, paragraph 5.
230 Ramsar Convention, Article 4, paragraph 1.
231 Ramsar Convention, Article 4, paragraph 4.
232 Ramsar Convention, Article 4, paragraph 5.
233 Ramsar Convention, Article 5, paragraph 1.
234 Ramsar Convention, Article 2, paragraph 4.
235 See Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands (Ramsar, Iran, 1971) third edition, Objective 1.
236 Ibid., see also Box I.
237 See Resolution VIII.10 (2002), paragraphs 15 and 19-22.
238 See Resolution IX.15 (2005), paragraph 5; at COP9 a total of 1,555 sites was designated as Ramsar sites.
239 Resolution VII.11 (1999), Annex, paragraph 21.
240 See www.ramsar.org (accessed 31 December 2009).
241 Resolution X.1 (2008), Annex, Strategy 2.1.
242 Examples are Bolivia (8), Brazil (11), Chile (9), Egypt (2), Greece (10), Guatemala (7), Indonesia (3), Jordan (1), Kenya (5), New Zealand (6), Sri Lanka (3), Venezuela (5), Zambia (8); see website www.ramsar.org (accessed 2 May 2010).
243 51 Contracting Parties of which 31 have only designated one site; see website www.ramsar.org (accessed 2 May 2010).
244 Resolution VIII.10 (2002), Annex.
245 Resolution IX.15 (2005), Annex.
246 Ibid., paragraph 6.
247 Resolution X.13 (2008), paragraph 5.
248 Ramsar Convention, Article 3, paragraph 1.
249 Resolution VII.6 (1999).
250 Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) 42.
251 Ramsar COP9 DOC.5 (2005), paragraph 22.
252 Ramsar COP10 DOC.6 (2008), paragraph 32.
253 Resolution VIII.14 (2002), Annex.
254 Resolution VIII.14 (2002), paragraph 6.
255 Ramsar COP10 DOC.6 (2008), paragraph 48.
256 Ramsar Convention, Article 3, paragraph 2.
257 See also sub-section 2.7.
258 Resolution VII.12 (1999), paragraph 6.
259 Resolution VIII.8 (2002), paragraph 6.
260 Resolution IX.15 (2005), paragraph 9.
261 Ibid., paragraphs 10-13.
262 Resolution X.13 (2008), paragraph 20.
263 Ibid., paragraph 16.
264 Ramsar Convention, Article 4, paragraph 1.
265 Resolution IX.22 (2005), paragraph 8.
266 Directive 2009/147/EC (which used to be Council Directive 79/409/EEC) and Council Directive 92/43/EEC respectively.
267 See sub-section 2.6 (ii) for more information on this subject.

[268] Ramsar Convention, Article 4, paragraph 4.
[269] Ramsar Convention, Article 4, paragraph 5.
[270] Resolution VIII.25 (2002), Annex, Operational Objective 20: Training: Identify the training needs of institutions and individuals concerned with the conservation and wise use of wetlands, particularly in developing countries and countries in transition, and implement appropriate responses.
[271] Ramsar COP9 DOC.5 (2005), paragraph 84.
[272] See Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) Chapter 4.5.2.
[273] Resolution X.1 (2008), Annex, Strategy 4.1 (iv).
[274] Ramsar Convention, Article 5, paragraph 1.
[275] See Resolution IX.8 (2005), Annex, Strategy 2.5.
[276] Ramsar COP10 DOC.6 (2008), paragraph 52.
[277] See Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 4.4.2: Floodplains of the Morava-Dyje-Danube (Austria, Slovak Republic, Czech Republic), the Vallée de la Haute-Sûre (Belgium, Luxemburg), the Domica-Baradla Cave System (Hungary, Slovak Republic) and the Upper Tisza Valley (Hungary, Slovak Republic); see also on the issue of transboundary wetlands under the Ramsar Convention Verschuuren J., 'The Case of Transboundary Wetlands under the Ramsar Convention: Keep the Lawyers Out!' (2008) 19:1 *Colorado Journal of International Environmental Law & Policy* 49.
[278] Ramsar COP9 DOC.5 (2005), paragraph 11.
[279] Ibid.
[280] Ramsar COP10 DOC.6 (2008).
[281] Farrier D. and Tucker L., 'Wise Use of Wetlands under the Ramsar Convention: A Challenge for Meaningful Implementation of International Law' (2000) 12:1 *Journal of Environmental Law*.
[282] Verschuuren J., 'The Case of Transboundary Wetlands under the Ramsar Convention: Keep the Lawyers Out!' (2008) 19:1 *Colorado Journal of International Environmental Law & Policy* 49.
[283] Gardner R. and Connolly K., 'The Ramsar Convention on Wetlands: Assessment of International Designations Within the United States' (2007) 37 *Environmental Law Institute*.
[284] See Chapter III, sub-sections 4.6 and 5.6 for more detailed information.
[285] Bulgaria, Hungary, USSR [at time of signature].
[286] See http://portal.unesco.org/en/ev.php-URL_ID=15398&URL_DO=DO_TOPIC&URL_SECTION=201.html.
[287] See Ramsar Convention, Article 2, paragraph 5.
[288] Resolution VII.23 (1999) on boundary definitions and compensation and Resolution VII.24 (1999) on compensation for lost wetland habitats.
[289] Di Leva C. and Tymowski W., *The Ramsar Convention on Wetlands: The Role of 'Urgent National Interest' and 'Compensation' in Wetland Protection* (IUCN, Gland, 2000).
[290] Resolution VIII.20 (2002), Annex, General guidance for interpreting 'urgent national interest' under Article 2.5 of the Convention and considering compensation under Article 4.2.
[291] Ibid., paragraph 5.
[292] Ibid., paragraph 6.
[293] See Di Leva C. and Tymowski W., *The Ramsar Convention on Wetlands: The Role of 'Urgent National Interest' and 'Compensation' in Wetland Protection* (IUCN, Gland, 2000) paragraph 11.
[294] Directive 2009/147/EC (which used to be Council Directive 79/409/EEC).
[295] Council Directive 92/43/EEC.
[296] Ramsar Advisory Missions: No. 46, Mühlenberger Loch, Germany (2001).
[297] Ramsar COP10 DOC.7 (2008), paragraph 13.
[298] Ibid., paragraph 14.
[299] Ibid., paragraph 15.
[300] Ramsar COP9 DOC.6 (2005), paragraph 24.
[301] Resolution IX.6 (2005).
[302] See sub-section 2.2 (i) for details.
[303] Nine Contracting Parties are only party to the original 1971 convention (Algeria, Uruguay, Suriname, Belgium, Mali, Croatia, the former Yugoslav Republic of Macedonia, Serbia, Bosnia and Herzegovina) and 77 Contracting Parties have not accepted the Regina Amendments; see http://erc.unesco.org/cp/convention.asp?KO=15398&language=E (accessed 3 May 2010).

[304] Ramsar Convention, Article 4, paragraph 3.
[305] Ramsar Convention, Article 6, paragraph 2 (e).
[306] Ramsar Convention, Article 7, paragraph 1.
[307] Ramsar Convention, Article 3, paragraph 2.
[308] Resolution 5.3 (1993).
[309] See Resolution VIII.13 (2002) and Resolution IX.1 (2005), Annex B for the latest version of the RIS and its Explanatory Note and Guidelines.
[310] Resolution VI.13 (1996), paragraph 4.
[311] Ibid., paragraph 7.
[312] See also sub-section 2.10.
[313] See Box I for definitions.
[314] Resolution IX.1 (2005), Annex E.
[315] Ibid., paragraph 17.
[316] Ibid., paragraph 20.
[317] Resolution VIII.6 (2002).
[318] Guidance was adopted on a number of types of assessments and further guidance has been adopted by COP9 in 2005 or is being prepared by the STRP for publication as Ramsar Technical Reports.
[319] Resolution VI.1 (1996) and laid down in Handbook 8: Managing Wetlands.
[320] Ibid., paragraph 189(i).
[321] Ibid., paragraph 189(ii).
[322] Resolution X.1 (2008), Annex, Strategy 2.6.
[323] A similar requirement was included in the previous Strategic Plan 2003-2008 (General Objective 2 and Operational Objective 11.2).
[324] Recommendation 4.8 (1990).
[325] See for more information sub-sections 2.9 and 2.10.
[326] Resolution VIII.8 (2002), paragraphs 6 and 12.
[327] Resolution VIII.10 (2002), paragraph 24.
[328] Ramsar COP9 DOC.6 (2005), paragraph 20.
[329] Ibid., paragraph 21.
[330] See Report of the 35th meeting of the Standing Committee, paragraph 29.
[331] See Resolution X.13 (2008), paragraphs 8, 12, 13, 16,19 and 20 and Ramsar COP10 DOC.6 (2008), paragraph 48.
[332] Resolution X.13 (2008), paragraph 16.
[333] Activities with International Organization Partners 'Watching the Wetlands', DOC.SC35-4 (2007).
[334] Resolution IX.1 (2005), Annex D.
[335] See sub-section 2.4 for the complete list of indicators.
[336] See also sub-section 2.4.
[337] Resolution X.1 (2008), Annex, Strategy 2.6, Key Result Area 2.6 (iii).
[338] The report is available on www.jncc.gov.uk/worldwaterbirds.
[339] See www.iucn.org.
[340] See http://wwf.panda.org.
[341] See www.birdlife.org.
[342] See www.unesco.org/water/wwap.
[343] The report is available on the website.
[344] See World Water Assessment Programme, *Water in a Changing World* (UN, 2009) 226.
[345] See www.giwa.net.
[346] UNEP, *Challenges to International Waters; Regional Assessments in a Global Perspective* (2006); the report is available on www.unep.org/dewa/giwa/publications/finalreport.
[347] Ibid., 90.
[348] Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Wetlands and Water Synthesis* (Washington, 2005); the report is available on www.millenniumassessment.org.
[349] Ibid., 25.
[350] See Ramsar COP8 (2002), paragraph 12; see for an extensive article on the MA on wetlands and water in relation to the Ramsar Convention Bridgewater P., 'A New Context for the Ramsar Convention: Wetlands in a Changing World' (2008) 17:1 *RECIEL* 100.
[351] See for more information www.esa.int.

[352] Interview of 8 November 2006 with ESAC Chair Hartmut Graßl on www.esa.int.
[353] Ibid.
[354] See Esty D. et al., *2008 Environmental Performance Index* (New Haven, 2008) 57.
[355] Recommendation 4.5 (1990).
[356] Resolution VII.9 (1999).
[357] Resolution VIII.31 (2002), Annex 1.
[358] Ibid., paragraph 8(b).
[359] See the Ramsar Convention Work Plan 2006-2008 adopted by the 34th meeting of the Standing Committee, Strategy 4.4.
[360] Third edition, 2007; available on www.ramsar.org.
[361] Resolution VIII.31 (2002), paragraph 15.
[362] See Minutes First Meeting of CEPA Oversight Panel, summary report, paragraph 17.
[363] Resolution IX.18 (2005).
[364] See Resolution IX.18 (2005), Annex.
[365] See Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 4.5.2.
[366] Ibid., paragraph 4.5.2.
[367] See www.wli.org.uk.
[368] Ramsar COP10 DOC.16 (2008).
[369] Ibid., paragraph 17.
[370] Ibid., paragraph 22.
[371] Ibid., paragraph 45.
[372] Resolution X.8 (2008).
[373] www.ramsar.org.
[374] See Resolution VIII.31 (2002), paragraph 8.
[375] Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 1.5.
[376] See Ramsar Small Grants Fund for Wetland Conservation and Wise Use (SFG), Operational Guidelines for the Triennium 2009-2012, paragraph 5.
[377] Ibid., paragraph 2.
[378] See www.ramsar.org (accessed 7 May 2010).
[379] See Resolution VII.5 (1999), paragraphs 15-20.
[380] Ibid., paragraphs 4 and 6.
[381] Resolution X.7 (2008), paragraph 4.
[382] See DOC. SC41-12 (2010) Report on the Ramsar Small Grants Fund.
[383] Resolution VII.5 (1999), paragraph 6.
[384] See Resolution VIII.29 (2002).
[385] Resolution IX.13 (2005).
[386] See Resolution X.7 (2008).
[387] See Astrálaga M. and Carvajal A., *The Wetlands of the Future Fund: A Performance Review of the First Ten Years* (2006) paragraph 3.1.
[388] Ibid., Annex I.
[389] Ibid., paragraph 3.2.
[390] Ibid., paragraph 3.3.
[391] Ibid.
[392] See Rivera M. and Llorens M., *Wetlands for the Future Fund: Benefiting Wetland Management and Conservation in Latin America and the Caribbean* (2010) available on www.ramsar.org.
[393] See for more information on the Swiss Grant for Africa www.ramsar.org.
[394] Resolution VII.28 (1999), paragraph 18.
[395] Resolution VIII.31 (2002), paragraph 11.
[396] Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 4.4.7.
[397] See Ramsar COP10 DOC.6 (2008), paragraph 80.
[398] Detailed information is available on www.ramsar.org.
[399] See Recommendation 5.4 (1993).

400 See Report Third Assembly of the Global Environment Facility, August 2006 at www.ramsar.org (under News Archives 2006).
401 Report of the 35th meeting of the Standing Committee, paragraph 9.
402 See Gardner R. and Connolly K., 'The Ramsar Convention on Wetlands: Assessment of International Designations Within the United States' (2007) 37 *Environmental Law Reporter* 10096.
403 See Resolution VIII.8 (2002), paragraph 21.
404 There are currently about 50 Ramsar sites on the record, while over 30 sites have been removed; see www.ramsar.org (accessed 8 May 2010).
405 See Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 4.3.6.
406 Ibid., paragraph 4.5.2; see also Ramsar COP10 DOC.16 (2008), paragraph 50.
407 Ibid., paragraph 4.5.2.
408 Ramsar COP10 DOC.16 (2008), paragraph 53.
409 Ramsar Convention, Article 5.
410 Sometimes a transboundary wetland is a designated Ramsar site in one state, but not in the other; the Secretariat will support the cooperation in such a case as well; see Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 4.4.2.
411 Ibid.
412 See Bowman M., 'The Ramsar Convention on Wetlands: Has it Made a Difference?' in Stokke O. and Thommessen O. (Eds.), *Yearbook of International Co-operation on Environment and Development 2002/2003* (London, 2002) 61-8.
413 See Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006) paragraph 4.4.4.
414 Ibid., paragraph 4.4.5.
415 Resolution VIII.30 (2002), Annex I.
416 Resolution IX.7 (2005).
417 Ramsar Convention, Article 4, paragraph 3 and Article 6, paragraph 2 (e).
418 See Ramsar COP10 DOC.6 (2008), paragraph 76.
419 Ibid.
420 Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran,1971)* (Gland, 2006) paragraph 1.5.
421 Resolution VIII.15 (2002).
422 Ibid., paragraph 8.
423 Written reply to questionnaire Ramsar Secretariat by Mr. Dwight Peck, Communications Officer, 22 October 2007.
424 See www.env.go.jp/en/headline/headline.php?serial=83.
425 See www.ramsarcommittee.us/index.asp: Ramsar Convention Fact Sheet (accessed 9 May 2010).
426 See Gardner R. and Connolly K., 'The Ramsar Convention on Wetlands: Assessment of International Designations Within the United States' (2007) 37 *Environmental Law Reporter* 10095 and 10098.
427 See Lynch-Stewart & Associates, *Wetlands of International Importance (Ramsar Sites) in Canada: Survey of Ramsar Site Managers 2007* (2008) III; and Gardner R., Connolly K., & Bamba A., 'African Wetlands of International Importance: Assessment of Benefits Associated with Designations under the Ramsar Convention' (2009) XXI *The Georgetown International Environmental Law Review* 291.
428 See Chapter V.
429 See Chapter III, sub-section 5.10 (iv).
430 See sub-section 2.5.
431 See www.ramsarcommittee.us/index.asp: Ramsar Convention Fact Sheet (accessed 9 May 2010).
432 Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 673.
433 See KB 5 January 1993, *M en R* 1994, nr. 36.
434 See ABRvS 10 February 2000, *M en R* 2000, nr. 122 and ABRvS 19 March 2003, *M en R* 2003,nr. 6.
435 See Anderson M., 'International Environmental Law in Indian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 155.
436 *People United for Better Living in Calcutta v State of West Bengal* AIR 1995 SC 922 at 227.
437 *Minister for the Environment & Heritage v Greentree (No 2)* [2004] FCA 741.

[438] Division 1 of Part 3 of the *EPBC Act* is headed 'Requirements relating to matters of national environmental significance'. Subdivision B (ss 16-17B) deals with 'Wetlands of international importance'. Section 16 provides as follows: '(1) A person must not take an action that: (a) has or will have a significant impact on the ecological character of a declared Ramsar wetland; or (b) is likely to have a significant impact on the ecological character of a declared Ramsar wetland'.

[439] See for detailed information on the Court's decision www.environment.gov.au/epbc/compliance: Case Judgements (accessed 9 May 2010).

[440] See KB 11 September 2007, Stb. 2007, 347; see for more information on this decision Verschuuren J., 'Ramsar Soft Law is Not Soft at All: Discussion of the 2007 Decision by the Netherlands Crown on the Lac Ramsar Site on the Island of Bonaire' (2008) This paper is a translation of a case law annotation published in the Dutch environmental law review (2008) 35:1 "*Milieu en Recht*" (Environment and Law) 28.

[441] Chapter III, sub-sections 4.10 and 5.10 (i).

[442] Ramsar Convention, Article 2, paragraph 5.

[443] Ramsar Convention, Article 3, paragraph 2.

[444] Ramsar Convention, Article 8, paragraph 2 (d).

[445] Ramsar Convention, Article 8, paragraph 2 (e).

[446] See Recommendation 2.1 (1984).

[447] On the Ramsar website www.ramsar.org.

[448] See www.ramsar.org: National Reports to the COP (accessed 9 May 2010).

[449] Ibid.

[450] Ibid.

[451] Ibid.

[452] Ramsar COP9 DOC.5 (2005), paragraph 16.

[453] Ibid., paragraph 10.

[454] See www.ramsar.org (accessed 9 May 2010).

[455] Ramsar COP10 DOC.6 (2008), paragraph 24.

[456] Resolution VIII.26 (2002), paragraph 16.

[457] See Ramsar COP10 DOC.6 (2008), paragraph 46.

[458] Resolution VIII.13 (2002), paragraph 6.

[459] See for instance Ramsar COP9 DOC.6 (2005), paragraph 21 and Ramsar COP10 DOC.7 (2008), paragraph 19.

[460] Recommendation 4.8 (1990) established the Montreux Record, Recommendation 4.7 (1990) introduced the Ramsar Advisory Mission.

[461] Ramsar Convention, Article 8, paragraph 2 (d).

[462] Ramsar Convention, Article 8, paragraph 2 (e).

[463] See previous sub-section.

[464] See www.ramsar.org: The Montreux Record (accessed 9 May 2010).

[465] See Verschuuren J., 'The Case of Transboundary Wetlands under the Ramsar Convention: Keep the Lawyers out!' (2008) 19:1 *Colorado Journal of International Law & Policy* 49.

[466] Written reply to questionnaire Ramsar Secretariat by Mr. Dwight Peck, Communications Officer, 22 October 2007.

[467] Ibid.

CHAPTER V: UNESCO CONVENTION CONCERNING THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE

1. Introduction

International safeguarding campaigns initiated by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) to conserve outstanding cultural sites formed the basis for the decision to draft a convention to protect the cultural heritage of the world.[1] In 1965, the USA proposed adding the natural heritage to this convention and the IUCN developed the first proposals for a convention text along these lines in 1968. These proposals were presented to the 1972 United Nations conference in Stockholm and adopted by the General Conference of UNESCO in the same year. This marked the birth of the UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage, or the World Heritage Convention. It entered into force on 17 December 1975. The convention now has 186 States Parties and covers 890 protected sites of which 689 are cultural, 176 are natural and 25 are mixed.[2]

Under the convention, only those properties that are deemed to be of 'outstanding universal value' are included in the World Heritage List, based on the concept that these World Heritage sites belong to all the peoples of the world. Since the protection of biodiversity is the subject of this study, the focus of this chapter is on the convention's protection of the natural heritage.

The nomination of sites is the responsibility of the States Parties. The number of sites that a party can propose is unlimited, but demanding standards have to be met and a lengthy procedure must be followed to get a site listed. This may contribute to the general perception amongst States Parties that the inclusion of a national site in the World Heritage List is a prestigious privilege.

Article 2 of the convention lays down what is considered to be a natural heritage: 'natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty'.[3] Natural properties of outstanding universal value should:

— contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; or
— be outstanding examples representing major stages of the earth's history, including the record of life, significant on-going geological processes in the development of land forms, or significant geomorphic or physiographic features;[4] or
— be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals; or
— contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.[5]

Furthermore, other important considerations concern the protection, management and integrity of the site.

Before a decision is made to include a natural property in the list, the IUCN will provide an evaluation of the nominated site.[6]

There are two 'hybrid' forms of World Heritage sites: the mixed site, which has both outstanding natural and cultural values, and the cultural landscape, in which significant interaction between people and the natural environment has taken place.

When becoming a party to the convention, a state has to ensure that 'effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage'.[7] Listed sites have become 'world heritage properties' and as a consequence the international community as a whole has a duty to protect them.[8]

Special arrangements have been made under the convention for sites that are in danger and for which major conservation measures are necessary.[9] These sites will be included in the 'List of World Heritage in Danger'.[10]

In 1994 a Global Strategy was launched by the World Heritage Committee to address the growing concern that the World Heritage List did not sufficiently represent all regions and that a reasonable balance between natural and cultural sites was gradually disappearing to the detriment of the former.[11] In 2002, at the 30th anniversary of the convention, the World Heritage Committee adopted the Budapest Declaration on World Heritage, in which the Strategic Objectives of the convention have been laid down.[12]

In the next section the ten elements of the Effectiveness Test are examined with regard to this convention.

Box I: Key Terms World Heritage Convention

Natural Heritage: Natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.[13]

Outstanding Universal Value: Cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.[14]

Integrity: A measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes.[15]

Partner: A partner of the World Heritage Centre is an organisation, public or private, that has an agreement with UNESCO to specifically support the promotion and the protection of World Heritage.[16]

Partnership: A partnership is a collaboration between UNESCO and a partner to participate in promoting and protecting World Heritage, through specific goals and objectives.[17]

2. The Effectiveness of the World Heritage Convention

2.1 Element 1: Parties

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.*

Only states can become a party to the World Heritage Convention and as a consequence the EC is not a party. To date, 186 states have signed and ratified the convention, of which 148 have one or more World Heritage sites within their territory.[18] This means that the membership of the convention is almost universal. All developed countries, including the EU Member States and the USA are States Parties, as are almost all developing countries. The few states that are not a member of the convention are mainly small developing countries.

In *World Heritage: Challenges for the Millennium*, an UNESCO/World Heritage Convention publication, the expectation is expressed that within the next five to ten years universal membership will be achieved.[19]

Conclusion

To date, the World Heritage Convention has an impressive number of States Parties (186) and universal membership is within reach. The list of States Parties includes those states that can be expected to make a significant contribution to the conservation of natural sites of outstanding universal value. The contribution of this element to the effectiveness of the convention is therefore considered to be **satisfactory**.

2.2 Element 2: Institutional Framework

Benchmark: *For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.*

The basis for an institutional framework can be found in the convention. Three bodies are mentioned: the General Assembly of States Parties, the World Heritage Committee and the Secretariat.[20] The possible use of the three advisory bodies is also mentioned in the convention.[21] The General Conference of UNESCO may revise the convention, which revision only binds States Parties that become parties to the revised convention.[22]

i. The General Assembly of States Parties

In the General Assembly all States Parties are represented. It meets once every two years during the ordinary session of the General Conference of UNESCO. The main functions of the General Assembly are the election of new members to the World Heritage Committee

and the establishment of the new financial contributions of the States Parties.[23] The election of the new members to the World Heritage Committee appears to be a highly political affair.[24] In more recent years, policy related issues, such as the monitoring of and reporting on the state of conservation of world heritage properties, have been added to the General Assembly's agenda.

ii. The World Heritage Committee

The World Heritage Committee (Committee) has 21 members, who are elected by the General Assembly for a period of six years, but are encouraged to reduce their term to four years and to refrain from seeking a consecutive term for a more equitable rotation and representation.[25] Every two years, at least one-third of the Committee is replaced by new members, who are elected by the General Assembly. The members should represent a good regional balance.[26] Representatives of States Parties that have not paid their mandatory contribution are not eligible for election.[27]

The Committee meets once a year in June/July to discuss and decide on all matters concerning the implementation of the convention.[28] Decisions must be taken by a majority of two-thirds of its members present and voting. A majority of the members of the Committee constitute a quorum.[29] The Committee has adopted its Rules of Procedure, as required by Article 10 of the convention.[30]

The main responsibilities of the World Heritage Committee are to decide on the inclusion of new sites in the World Heritage List,[31] to examine the state of conservation of the World Heritage sites,[32] to decide which sites should be inscribed on, or removed from the List of World Heritage in Danger,[33] to allocate finances for various activities and to explore ways to increase the World Heritage Fund.[34] Furthermore, the Committee is supposed to decide whether a site should be deleted from the World Heritage List, to revise and adopt the Operational Guidelines, and to periodically review and evaluate the implementation of the convention.[35] A report of its activities must be presented at each of the meetings of the General Assembly of the States Parties.[36] Finally, the development of the Strategic Objectives of the convention is also the responsibility of the Committee.[37]

iii. The Bureau

The Bureau was introduced to coordinate the work of the Committee. It consists of seven States Parties, which are elected annually by the Committee. The Bureau meets between Committee meetings as often as necessary to prepare the next annual meeting of the Committee. The Committee and the Bureau are chaired by the same person, who performs this task for a period of one year.

iv. The World Heritage Centre

The Secretariat, which is now called the UNESCO World Heritage Centre (World Heritage Centre), is responsible for the day-to-day operations of the convention and is based at the offices of UNESCO in Paris. It employs a staff of over 80 people of which around half on the basis of short-term contracts.[38] The World Heritage Centre is appointed by the Director-General of UNESCO[39] and headed by a Director.[40] The tasks of the World Heritage Centre are defined as follows:

— to organise the meetings of the General Assembly and the Committee and implement their decisions and resolutions;
— to receive, check the completeness of, and transmit to the relevant Advisory Bodies the nominations to the World Heritage List;
— to coordinate studies and activities as part of the Global Strategy for a Representative, Balanced and Credible World Heritage List (henceforth the Global Strategy)
— to organise the periodic reporting exercise and coordinate the reactive monitoring process;
— to coordinate international assistance;
— to mobilise extra-budgetary resources for the conservation and management of World Heritage sites;
— to assist States Parties in the implementation of the Committee's programmes and projects;
— to promote the convention through the dissemination of information to States Parties, the Advisory Bodies and the general public.[41]

In 2007, a management audit of the World Heritage Centre was carried out by Deloitte on request of the Committee. While the outcome of this audit was generally positive, a list of recommendations was presented to further improve the performance of the World Heritage Centre.[42] Nevertheless, there are indications that the World Heritage Centre is stretched to capacity,[43] and that the large number of short-term contracts due to uncertain funding is becoming problematic.[44]

v. The International Union for Conservation of Nature and Natural Resources (IUCN)

There are three advisory bodies mentioned in the convention: the International Union for Conservation of Nature and Natural Resources (IUCN) for the natural heritage, the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), and the International Council on Monuments and Sites (ICOMOS) for the cultural heritage.[45] Since this study focuses on the protection of biodiversity, it will solely look more closely at the role of the IUCN as the official technical advisory body to the World Heritage Committee on natural heritage. This body's main responsibilities are:

— to advise on the implementation of the World Heritage Convention;
— to assist the World Heritage Centre in the preparation of Committee documentation, the agenda of its meetings and the implementation of Committee decisions;
— to assist with the development and implementation of the Global Strategy and the Global Training Strategy, periodic reporting, and strengthening the effective use of the World Heritage Fund;
— to monitor the state of conservation of World Heritage sites and review requests for international assistance;
— to evaluate sites nominated for inscription on the World Heritage List and present evaluation reports to the Committee;
— to attend meetings of the World Heritage Committee and the Bureau in an advisory capacity.[46]
— to review States Parties' requests for international assistance.[47]

In 2005, an extensive external review of IUCN's World Heritage work was carried out.[48] Its overall conclusion is that the IUCN performs its tasks for the World Heritage Convention in a professional manner. Recommendations were presented to further improve its performance.[49]

vi. National Focal Points

Each State Party should appoint a national focal point as its main contact for the World Heritage Centre.[50] The national focal points are often staff members of government ministries, other government organisations or universities.

vii. The Financial Budget

The day-to-day operations of the convention are funded partly by UNESCO and partly by the World Heritage Fund. It appears that the staff working for the convention is paid for by UNESCO (Regular Budget). For the period 2010-2011, the total budget for staff payments is nearly USD 12 million.[51] Running costs, such as those of the services of the advisory bodies, meetings, studies and evaluations are partly paid for by UNESCO, partly by the World Heritage Fund.[52] The budget of the World Heritage Fund for the period 2010-2011 amounts to almost USD 7 million, over half of which will be used to cover the costs of the organisation of meetings of the governing bodies, while nearly all of the remainder will pay for activities that directly benefit the World Heritage sites, such as implementing the global strategy, monitoring of the sites, supervising periodic reporting and preparing publications.[53] The additional running costs will be financed by UNESCO (Regular Budget) and the amount budgeted for the period 2010-2011 is over USD 4.5 million.[54] The budget proposals make no distinction between expenditure for natural or cultural sites.[55] In relation to the budget proposals for 2010-2011 the Committee has stated that it 'strongly urges the General Conference and Executive Board of UNESCO to significantly increase the level of core funding to the World Heritage Centre so that adequate funding is available to support the staff necessary to enable the World Heritage Centre to effectively meet the increasing needs of this very successful and high profile Convention'.[56]

The World Heritage Fund is largely funded by the contributions from the States Parties. To encourage States Parties to pay their contributions on time the convention excludes States Parties that are in arrears with the payment of their contributions from becoming a member of the Committee.[57]

The current level of funding might become an issue in view of the workload allocated to the World Heritage Centre.[58]

viii. Conclusion

The institutional framework of the World Heritage Convention appears to be well-organised and properly developed. The Committee, the Bureau, the World Heritage Centre as well as the IUCN as the advisory body for natural sites seem to be functioning properly and their respective tasks have been clearly defined. It is commendable that the Committee requested an independent management audit of the performance of the World Heritage Centre and that the IUCN had its work for the World Heritage Committee reviewed. It should be noted, however, that staffing levels at the World Heritage Centre are considered

to be low and that this might become an issue. The budget appears to be just sufficient to cover the operational costs of the convention, although there are indications that more funds will be needed in the future to adequately carry out all tasks. The overall conclusion is that at this stage the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.3 Element 3: Environmental NGOs and Other Stakeholder Groups

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.*

Several provisions in the convention encourage the cooperation between the bodies of the convention and other stakeholders. Three advisory bodies are introduced,[59] and opportunities are created for the involvement of other international or national organisations, both private and public, as well as for individuals that have objectives similar to those of the convention.[60]

The Rules of Procedure,[61] clarify how interested stakeholders may participate in the meetings of the World Heritage Committee (the Committee). In the Rules of Procedure it is stated that the Committee 'may at any time invite public or private organizations or individuals to participate in its sessions for consultation on particular problems'[62] and that 'upon written request, other international governmental and non-governmental organizations, permanent observer missions to UNESCO and non profit-making institutions having activities in the fields covered by the Convention, may be authorized by the Committee to participate in the sessions of the Committee as observers'.[63]

In 2002, the World Heritage Partnerships Initiative, now known as the World Heritage Partnership for Conservation Initiative (PACT), was introduced, with the intention to come to a more systematic approach to cooperating with stakeholders such as (environmental) NGOs, the private sector and the United Nations institutions participating in World Heritage projects and activities.[64] One of its objectives is 'to mobilise new financial, human and technical resources for World Heritage conservation'.[65] The following key principles were decided upon: (1) Common purpose, (2) Transparency, (3) Bestowing no unfair advantages upon any partner, (4) Mutual benefit and mutual respect, (5) Accountability, (6) Respect for the modalities, aims and principles of the United Nations, (7) Striving for balanced representation of relevant partners from developed and developing countries with economies in transition, (8) Maintaining the independence and neutrality of the United Nations system.[66] In its evaluation of PACT in 2007, the Committee claims that 'achievements in developing agreements with new partners and maintaining existing partnerships have exceeded expectations'.[67]

Several stakeholder groups are associated with the implementation and management of the convention. These stakeholders and their level of participation will be examined in this sub-section.

i. International Union for Conservation of Nature and Natural Resources (IUCN)

Representatives of three organisations, the International Union for Conservation of Nature and Natural Resources (IUCN), the International Centre for the Study of Preservation and

Restoration of Cultural Property (Rome Centre) and the International Council of Monuments and Sites (ICOMOS), which are the advisory bodies to the World Heritage Committee (the Committee), have been allowed to attend the meetings of the Committee on a permanent basis.[68] These three bodies play an important role by supporting the Committee with the implementation of programmes and projects,[69] and by helping the Directory General of UNESCO with the preparation of the agenda and documentation for Committee meetings.[70] The IUCN activities in support of the convention have been discussed in the previous sub-section.[71]

ii. Environmental NGOs

The convention states that the Committee shall cooperate with international and national NGOs that have objectives similar to those of the convention.[72] Furthermore, NGOs may attend the Committee meetings, but only if the States Parties approve.[73] This apparently rather restrictive regime is repeated in the Operational Guidelines,[74] and the Rules of Procedure.[75] In the 1980s this has led to problems with some national NGOs that were refused to attend Committee meetings.[76]

In the Natural Heritage Strategy for the convention, published in 2006, five international environmental NGOs are mentioned regarding an 'expanding range of activities' in relation to World Heritage sites: Wildlife Conservation Society (WCS), World Wide Fund for Nature (WWF), Fauna and Flora International (FFI), Conservation International (CI), and The Nature Conservancy (TNC).[77] Agreements have been signed with these organisations, usually to obtain their operational and financial support for specific projects.[78] The intention is to develop closer cooperation with these environmental NGOs.[79]

iii. Scientists

It is indicated in the Operational Guidelines that research is important in relation to the implementation of the convention and that the Committee as well as the States Parties are supposed to invest in research 'since knowledge and understanding are fundamental to the identification, management, and monitoring of World Heritage properties'.[80]

Besides the scientific input from environmental NGOs, scientific support regarding the implementation of the convention is also received from a number of institutions. Close to home, UNESCO's Natural Sciences Sector is of great value to the convention, especially its divisions Ecological and Earth Sciences and the International Oceanographic Commission. UNEP-WCMC also plays an important role, providing technical support for the protection and management of World Heritage sites.[81]

Furthermore, the World Heritage Centre has signed agreements with several space agencies, to be able to monitor the World Heritage sites from space.[82]

Examples of other relevant partners are the American Museum of Natural History and the Earthwatch Institute. Cooperation agreements have been signed with both of them.[83]

iv. Bodies of Biodiversity-Related and Other Environmental Conventions

The intention of close cooperation between the World Heritage Centre and the secretariats of the other four biodiversity-related conventions assessed in this study (the Ramsar Convention, CITES, the CMS and the CBD) is well-documented.[84] The cooperation with the

CBD receives most attention since this convention 'sets the global agenda for the conservation and wise use of biodiversity'.[85]

The secretariats of these five biodiversity-related conventions participate in the Biodiversity Liaison Group.[86] One of the objectives of the Biodiversity Liaison Group is to harmonise reporting, which aim is specifically mentioned in the World Heritage documentation.[87] This, however, appears to be complicated for the World Heritage Convention, since its reporting also covers cultural heritage.[88] The World Heritage Centre also works closely with the other four biodiversity-related conventions on a bilateral basis and has signed cooperation agreements with the secretariats of the CMS and the Ramsar Convention,[89] while a similar agreement with the CBD is in development.[90] No cooperation agreement exists with CITES, but it is indicated that cooperation between the two conventions is taking place on specific issues.[91] Copies of the cooperation agreements are not available on the convention's website.

The Man and Biosphere Programme (MAB), which is not a convention but a 'programme' and therefore not legally binding, is also operating under the auspices of UNESCO and close cooperation with the World Heritage Centre has been established.[92] The fact that 74 Biosphere Reserves (partly) overlap with World Heritage sites adds significantly to this cooperation.[93]

The World Heritage Centre is also working with the secretariats of the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention on the Law of the Sea (UNCLOS).[94] Cooperation with the former, has become more urgent since several petitions forced the Committee to put climate change and its possible impact on the World Heritage sites on its agenda.[95] The Committee decided in 2007 that the World Heritage Centre should strengthen its relations with the secretariats of the UNFCCC and the Intergovernmental Panel on Climate Change (IPCC).[96]

v. International and Regional Organisations

The World Heritage Convention operates under the auspices of UNESCO and the cooperation with this organisation appears to be close. UNESCO supports the convention financially and scientifically and both have their main offices in Paris. However, no specific information about the cooperation has been made available.

It is indicated by the World Heritage Committee that cooperation with the Council of Europe as well as with UNEP is taking place, but details are lacking.[97]

The United Nations Development Programme (UNDP) and the GEF have, together with the United Nations Foundation (UNF), launched a funding initiative that may also contribute to biodiversity conservation in natural World Heritage sites.[98] A cooperation agreement has been signed by all relevant parties.[99]

vi. Corporate Sector

The World Heritage Centre has developed close relationships with the private sector and many companies have become partners.[100] Most of these companies make donations and/or provide free services and expertise. In some cases they may use the World Heritage logo for promotional purposes in return.[101]

Another significant initiative has been the commitment of the Royal Dutch Shell Group as well as the International Council on Mining and Metals, which comprises 15 major mining

and metal producing companies, to abandon any operations in World Heritage sites.[102] The World Heritage Centre has as one of its objectives to extend this 'no-go' policy to other industries as well.[103]

It is indicated by the World Heritage Centre that its experience in developing partnerships with the corporate sector has been a very positive one.[104]

The partnership principles are applicable to the relationships with the private sector. Among others, these include principles regarding transparency, accountability, respect for the modalities, aims and principles of the United Nations and maintaining the independence and neutrality of the United Nations system.[105]

vii. Conclusion

The introduction of PACT in 2002 can be seen as a positive step to a more structured approach to the development of relationships with stakeholders. The eight key principles that should govern those relationships are, although somewhat lacking in detail, important to ensure integrity. The partnership agreements that have been signed are not available on the website of the convention, which does not contribute to greater transparency.

The cooperation between the main bodies of the convention, especially the World Heritage Centre, and the convention's relevant stakeholders is extensive. The notable position of the IUCN as an advisory body in relation to the natural World Heritage sites was already provided for in the convention. This organisation has played a significant role in the implementation and management of the convention.

Although the involvement of other environmental NGOs at policy level is comparatively limited, a number of them are actively participating in the convention's many operational projects.

Collaboration with science stakeholders appear to be well advanced, while relations with the other biodiversity-related conventions seem a little less firm. Although the intention of close cooperation with these conventions is confirmed in many documents, it has not yielded many practical results yet. However, this does not seem to be just a World Heritage Convention issue.

The good working relations established with some important international organisations in relation to funding are very valuable and the same goes for the partnerships entered into with the corporate sector.

Since there is active cooperation with the relevant environmental NGOs, as well as with other important stakeholders, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.4 Element 4: Objectives, Measures and Timing

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.*

The problems the convention intends to address are laid down in the first three recitals of the preamble:

Noting that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction,[106]

Considering that deterioration or disappearance of any item of cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world,

Considering that protection of this heritage at the national level often remains incomplete because of the scale of the resources which it requires and of the insufficient economic, scientific, and technological resources of the country where the property to be protected is situated.

Objectives and measures to address these problems have been laid down in the convention and additional decisions have been taken by the General Assembly and the Committee to further develop and extend these objectives and measures. In relation to World Heritage, UNESCO has also developed its own Mission Statement.

These objectives and measures as well as their timetables, if any, will be looked at in more detail in this sub-section.

i. The Objectives

The main objective of the convention can be found in the preamble:

Considering that parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.

In May 2000, the following Mission Statement for the convention was published by UNESCO: 'The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972'.[107]

In 2006, the UNESCO World Heritage Centre's Natural Heritage Strategy was endorsed by the World Heritage Committee. This document includes a specific Mission Statement for natural World Heritage sites: 'To promote the fullest and broadest application of the World Heritage Convention by all relevant stakeholders, from site level individuals to global organizations, in the pursuit of long-term conservation of biodiversity and sustainable development'.[108]

It should be noted that the terminology used for the protection of World Heritage sites varies. The convention aims to 'preserve' these sites in the preamble, but in Article 4 the aim is to 'protect' and 'conserve'. The terms 'protection' and 'preservation' in relation to World Heritage sites are also used in UNESCO's Mission Statement, but in the World Heritage Centre's Mission Statement for natural heritage, the objective is 'conservation' and 'sustainable development'. None of these terms are defined under the convention, although the Operational Guidelines describe the term 'sustainable use' as 'uses that are ecologically and culturally sustainable'.[109]

ii. Measures and Timing

The most important measures to be taken by States Parties and the Committee to realise the objectives that are formulated in the convention can be summarised as follows:

— States Parties should identify and delineate cultural and natural heritage of outstanding universal value;[110]
— States Parties should identify, protect and conserve their cultural and natural heritage that is of outstanding universal value to humanity;[111]
— States Parties should, among other things, integrate the protection of their heritage into comprehensive planning programmes, develop scientific and technical studies and research, take appropriate legal, scientific, technical, administrative and financial measures and establish training centres;[112]
— States Parties should cooperate and assist each other in their aim to protect all World Heritage sites;[113]
— States Parties should not deliberately damage World Heritage sites located in the territory of other States Parties;[114]
— States Parties should submit to the World Heritage Committee an inventory of property, that forms part of the cultural or natural heritage situated in their territory and is suitable for inclusion in the World Heritage List;[115]
— The Committee should establish a World Heritage List and a list of World Heritage in Danger;[116]
— The Committee should decide on the requests for inclusion in the World Heritage List;[117]
— The Committee should determine which of the States Parties may receive international assistance;[118]
— States Parties are required to make compulsory contributions to the World Heritage Fund,[119] which has been established under the convention;[120]
— States Parties should strengthen appreciation and respect by their peoples of the cultural and natural heritage by all appropriate measures, in particular by education and information;[121] and
— States Parties should report about the legislative and administrative provisions they have adopted and other actions they have taken for the application of the convention, together with details of the experience acquired in this field.[122]

Further interpretation and clarification of these measures by the Committee have been laid down in various decisions. The Operational Guidelines for the Implementation of the World Heritage Convention reflect these decisions and are updated regularly.[123] The following points are especially relevant.

The identification by a State Party of its heritage of outstanding value is usually the first step after signing and ratifying the convention.[124] The list of properties that is the result of this process is then referred to as the tentative list.[125] The involvement of various stakeholders in the preparation of the tentative lists is encouraged.[126] Each State Party is supposed to submit its tentative list to the World Heritage Centre.[127]

Next, a State Party can send one or more nominations to the World Heritage Centre for inscription on the World Heritage List.[128] An extensive nomination document has been developed that has to be completed for each nominated property.[129] This document

comprises the following sections: (1) Identification of the Property, (2) Description of the Property, (3) Justification for Inscription, (4) State of conservation and factors affecting the property, (5) Protection and Management, (6) Monitoring, (7) Documentation, (8) Contact Information of responsible authorities, (9) Signature on behalf of the State Party (ies).[130] Each of these sections is further explained in the Operational Guidelines.[131] A nomination can only be considered if the site is already included in the tentative list.[132]

Each nomination needs to be evaluated first by one of the advisory bodies, using a set of principles.[133] The IUCN is the advisory body for natural heritage sites. After receiving the recommendations from the advisory body, the Committee considers the nomination and decides whether a property should be added to the World Heritage List.[134] A detailed timetable has been prepared for this annual cycle.[135]

The Committee may decide to include a site in the List of World Heritage in Danger.[136] A procedure and a set of criteria for inclusion in this list have been developed.[137] The List of World Heritage in Danger must be reviewed annually.[138] It is also possible that the Committee de-lists a property from one or both lists. This measure is not included in the convention, but has been decided upon at a later stage. The procedure for delisting can be found in the Operational Guidelines.[139]

The protection requirement as laid down in the convention[140] has been further clarified as well. In relation to legislative, regulatory and contractual measures it is stated in the Operational Guidelines that 'at national and local level [legislative and regulatory measures] should assure the survival of the property and its protection against development and change that might negatively impact the outstanding universal value, or the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures'.[141] Further measures include the delineation of boundaries for each site and, where necessary, the addition of adequate buffer zones,[142] as well as the introduction of appropriate management plans or systems.[143]

The importance of training and research is emphasised by Article 5 (e) of the convention and acknowledged in the Global Training Strategy for World Cultural and Natural Heritage, which has been adopted by the Committee.[144] The States Parties are further encouraged to ensure adequate training and to make resources available to undertake research.[145]

The 'system of international cooperation and assistance' to support the States Parties,[146] is reflected for instance in the system of periodic reporting per region to encourage cooperation and exchange of information and experiences between States Parties.[147]

The establishment of the World Heritage Fund as well as the possibilities offered to States Parties to receive international assistance for the protection of World Heritage properties have been laid down in some detail in the convention,[148] and have been elaborated upon in the Operational Guidelines.[149] Both matters will be discussed further.[150] The same goes for subjects such as periodic reporting,[151] and awareness-raising and education.[152]

The importance of monitoring the state of conservation of the World Heritage sites can not be found in the convention, but a process for reactive monitoring has been developed by the Committee and laid down in the Operational Guidelines.[153] The issue of monitoring will be looked at in sub-section 2.7.

Initially, the convention had no clear strategy as to which properties should be listed. It was left to the States Parties to propose suitable sites. This gradually resulted in an unbalanced World Heritage List, with an over-representation of European sites (compared to sites in the rest of the world), cultural sites (compared to natural sites), historic towns and religious buildings (compared to other types of buildings), Christianity (compared to other

religions and beliefs), and 'elitist' architecture (compared to vernacular architecture). In 1994, of the total number of 410 properties, 304 were cultural sites, 90 natural and 16 mixed sites.

These shortcomings were recognised by the Committee in 1994 in a global strategy aimed at establishing a better balanced and diversified World Heritage List.[154] The definition of World Heritage was broadened and action plans were prepared for the various regions of the world. The Action Plan 2000-2002 for Europe and North America recognised the fact that Europe (especially Western Europe) has a disproportionate large share of properties in the World Heritage List.[155] States Parties have been invited to include under-represented types of properties in their tentative lists. The IUCN undertook a global review of natural and mixed sites and indicated that gaps exist in areas such as tropical/temperate grasslands, savannas, lake systems, tundra and polar systems, and cold winter deserts.[156] It should also be noted that areas forming part of the high seas are currently not eligible to become World Heritage sites as they are beyond national jurisdiction and therefore not within the convention's jurisdictional scope.[157]

In 2002, the Budapest Declaration was adopted by the Committee in which all interested stakeholders are invited to cooperate and promote the following four objectives:

— to strengthen the credibility of the World Heritage List, as a representative and geographically balanced testimony of cultural and natural properties of outstanding universal value;
— to ensure the effective conservation of World Heritage properties;
— to promote the development of effective capacity-building measures, including assistance for preparing the nomination of properties to the World Heritage List, for the understanding and implementation of the World Heritage Convention and related instruments;
— to increase public awareness, involvement and support for World Heritage through communication.[158]

These objectives are also referred to as the 4 Cs: Credibility, Conservation, Capacity-building, and Communication. At the 2007 session of the Committee in Christchurch, New Zealand, it was decided to add a fifth C to the Strategic Objectives, which stands for Community and corresponds with the objective to 'enhance the role of the Communities in the implementation of the World Heritage Convention'.[159]

To further the implementation of these objectives, the Committee decided in 2006 to examine an annual maximum of two nominations per State Party, of which at least one has to be a natural property (although this requirement was later weakened by leaving it to the State Party's discretion), and to limit the number of nominations it will annually review to 45. It also decided that in case it would receive more than 45 nominations it will give first priority to those submitted by States Parties that have no properties in the list yet and (only) fourth priority to nominations of natural sites.[160]

The Committee also adopted in 2006 a strategy on natural heritage.[161] However, the execution of this strategy seems somewhat restricted, since it is meant to be carried out only by the World Heritage Centre.[162] It distinguishes six so-called strategic orientations for natural heritage:

1. to continually improve World Heritage site management capacities;
2. to counter threats to World Heritage in Danger sites;
3. to complete the World Heritage List;
4. to apply the Ecosystem Approach;
5. to link up with the international biodiversity conservation agenda;
6. to mainstream the *Convention* and convey the World Heritage message.

In relation to the third orientation it should be noted that, although the gaps in natural heritage sites are pointed out again, no numerical objectives for natural heritage sites have been set by the Committee. However, a range of studies on this subject were carried out by the World Heritage Centre and the IUCN in collaboration with UNEP-WCMC.[163] The most recent analysis can be found in the IUCN Strategy Paper *The World Heritage List: Future priorities for a credible and complete list of natural and mixed sites*.[164] This paper indicates that a comprehensive World Heritage List comprises around 300 natural and mixed sites.[165] The document also prioritises specific types of natural and mixed sites for nomination.[166] The IUCN suggests that this number of 300 sites could be realised in about 10 years time,[167] and that subsequently the focus should be shifted to improving management.[168] The Committee has discussed this document at its 28th session in Suzhou, China, and States Parties are now 'encouraged to consult' this document.[169] However, the IUCN proposal has not been included in the Natural Heritage Strategy.

Over the years, the World Heritage Centre has developed several programmes following a thematic approach. Examples in relation to the natural sites are the World Heritage Marine Programme, the Forests Programme and the Sustainable Tourism Programme.[170] The objectives of the marine programme are threefold: (1) to 'address the gap on sites nominated for marine values', (2) to 'increase the conservation of existing and proposed World Heritage marine sites through development of strategic partnerships' and (3) to 'build capacity to manage existing and proposed World Heritage marine sites through networking and sharing'.[171] The twenty-year vision of the programme is to have all marine areas of outstanding universal value inscribed as World Heritage.[172] However, as already indicated this will be problematic in relation to marine areas beyond national jurisdiction. The three objectives of the forest programme are (1) to 'assemble and disseminate information and knowledge related to World Heritage forests and the role of the World Heritage Convention in their conservation', (2) to 'support the integration of World Heritage properties into the broader landscape with World Heritage which they are ecologically connected', and (3) to 'seek out and take advantage of opportunities to channel technical and financial support to World Heritage forests in an effort to enhance management capabilities and in dealing with priority management actions'.[173] The twenty-year vision for this programme is that 'World Heritage forests are models of forest protected area conservation at the national and international levels' and 'integrated into landscape level decision-making processes, [while forming] the nucleus around which sustainable livelihoods are practiced'.[174] The tourism programme has the following four objectives: (1) 'aiding the work of the Committee and the World Heritage regional officers', (2) increasing World Heritage property capacity to plan and manage tourism', (3) 'promoting alternative livelihoods for local communities' and (4) 'engaging the tourism industry to affect increased conservation benefits'.[175] The twenty-year vision for this programme is that the lessons learned have provided a framework and processes for continuing programme activities.[176]

The Rapid Response Facility was introduced in 2006 to quickly mobilise funds to respond to emergency situations in natural World Heritage Sites. This initiative is a collaboration between the World Heritage Centre, the United Nations Foundation and Fauna & Flora International.[177]

In 2005, concerns over the effects of climate change on World Heritage sites were brought to the attention of the Committee in the form of petitions by third parties.[178] This led to the establishment of a working group on the issue that developed a strategy that the States Parties are advised to implement.[179]

Many of the programmes developed by the World Heritage Centre are site, country or region specific. Some examples are the Pacific 2009 Programme that focuses on the full participation of the Pacific region in the World Heritage Convention and the World Heritage Thematic Study for Central Asia.[180] One of the shortcomings of the convention is that it is not possible to designate parts of the Global Commons, such as segments of the high seas, as World Heritage sites.[181]

Following the Effectiveness Test, measures should be accompanied by realistic timetables. The most significant example in this regard is the annual cycle for the nomination of new sites, for which a strict timetable has been developed.[182] In 2006, performance indicators were adopted for all World Heritage Thematic Programmes, including the marine programme, the forest programme and the sustainable tourism programme. Some time-related benchmarks are linked to the performance indicators for the marine programme and (to a lesser extent) the forest programme.[183] It is not yet clear if further targets concerning timing, for instance for completing the World Heritage list for natural and mixed sites, may be expected as well.

iii. Conclusion

Several differing objectives have been formulated for the convention. The objective laid down in the convention as well as in the mission statements that were developed at a later stage include terms such as conservation, preservation and sustainable development, but the use of these terms is not consistent and none of them have been defined. The convention states that World Heritage sites 'need' to be preserved, while the UNESCO mission statement uses the weaker term of 'encouraging' preservation. Therefore it remains unclear what exactly the long term objective of the convention is.

The most important measures necessary to achieve the objectives of the convention are laid down in the convention and are subsequently developed and clarified by the Committee. Unfortunately, the measures in the convention itself must be described as rather weak, which makes the soft law created by the Committee's decisions and the Operational Guidelines, which are largely based on these decisions, even more significant. The nomination and inscription procedures have been laid down in impressive detail in these Operational Guidelines. The launch of the global strategy in 1994, followed by the Budapest Declaration and the Natural Heritage Strategy introduced a more strategic approach to the administration of the convention. This is further underlined by the thematic programmes that have been developed.

The Committee had been somewhat relaxed about the possible impact of climate change on the World Heritage sites, and it was only after it received petitions on this issue that some actions were taken.

Why the Natural Heritage Strategy is meant to be executed only by the World Heritage Centre and not by the States Parties and the other bodies of the convention remains unclear. The Strategy Paper prepared by the IUCN indicating how to complete the World Heritage List for natural sites in about ten years seems of major importance, since it could speed up the process of completing the World Heritage List for natural and mixed sites considerably. However, the proposed strategy has not been implemented by the Committee, and States Parties are only 'encouraged to consult' it. The Committee might be reluctant to further limit the States Parties' initiative, but it seems a missed opportunity to establish the timely protection of the convention for properties of outstanding universal value that are not yet in the list. Besides, implementing IUCN's proposed strategy could deter States Parties from nominating unsuitable sites. The measures introduced by the Committee in 2006 appear to be insufficient to achieve the completion of the list within a ten year time frame. Furthermore, there is still the unsolved issue of marine areas of outstanding universal value beyond the jurisdiction of States Parties that currently can not be protected under the convention.

Except for the annual cycle for the nomination of new sites and the time schedules linked to the performance indicators that were adopted for the thematic programmes, no further timetables in relation to the implementation of the measures of the convention have been adopted.

Because of the lack of clear and precise objectives for the convention, the absence of a coherent strategy as to how and when the World Heritage List for natural and mixed sites should be completed and the omission of realistic timetables for the implementation of the measures of the convention, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.5 Element 5: Implementation

Benchmark: *For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.*

The World Heritage Convention is structured in such a way that inscription of a new site on the World Heritage List means that, at least in theory, for that specific site implementation has been largely achieved. The rigorous procedure that precedes inscription can be summarised as follows.

It starts with the preparation of a tentative list by a State Party. This list is described in the Operational Guidelines of the convention as 'an inventory of those properties situated on its territory which each State Party considers suitable for inscription in the World Heritage List'.[184] As of 2000, nominations to the World Heritage List by a State Party must always be included in its tentative list.[185] The list should be submitted to the World Heritage Centre and contain the names of the properties, their geographical locations, descriptions of the properties and justifications of their outstanding universal value.[186] A special format for the submission of the tentative list has been prepared and laid down in the Operational Guidelines.[187]

In relation to natural properties, States Parties are encouraged to take into account the IUCN study identifying the gaps in the World Heritage List,[188] to consult specific thematic studies,[189] and to harmonise their lists at regional and thematic level.[190] Assistance to States Parties to prepare or update their tentative list is available.[191]

It appears that the vast majority of the States Parties have prepared a tentative list.[192] As per November 2007, the total number of properties in these lists was 1435, of which 948 cultural, 307 natural and 180 mixed.[193] Out of the total number of States Parties,[194] 119 States Parties had included one or more natural and/or mixed sites.[195] It is clear that the sum of potential natural and mixed sites far exceeds the number of about 100 identified by the IUCN as still 'missing', which indicates that States Parties do not fully take into account the IUCN studies on future priorities. It is stated in the IUCN's 2004 Strategy Paper that the tentative lists are 'not as useful as they could be in relation to the development of a strategy for future natural and mixed WH sites' and 'are unrealistic in some of their proposals or do not properly take into account global conservation priorities'.[196]

The next step in the process is the nomination of a property for inscription on the World Heritage List. A special nomination document has been developed that forms the basis for the Committee to consider inscription of a property.[197] A State Party preparing the nomination of a property should involve the local community as well as other relevant stakeholders.[198] The World Heritage Centre is available to assist the State Party with the preparation of the nomination and/or the review of the draft nomination.[199] The nomination document begins with the identification and description of the property, which should include a map clearly indicating its boundaries.[200] Next, a justification for inscription should be presented, pointing out the outstanding universal value criteria on which the nomination is based. This should be accompanied by a statement of outstanding universal value of the property and a comparative analysis covering similar properties.[201] The state of conservation, factors affecting the property and the proposed approach to monitoring the site should also be included.[202]

The assessment of the first cycle of periodic reporting revealed that the statements of outstanding universal value of the majority of sites are not sufficient, nor is the baseline information on the state of conservation of the sites.[203] These aspects will be discussed in more detail in sub-section 2.7.

The subsequent paragraph in the nomination document on protection and management is of the essence and requires special attention. In relation to the protection of the nominated property, the document instructs a State Party to indicate the ownership situation, to list the legal, regulatory, contractual, planning and/or institutional status, to provide copies of texts explaining how the protection works in practice and to clarify any existing plans concerning the property.[204] It is stated in the Operational Guidelines that 'legislative and regulatory measures at national and local levels should assure the survival of the property and its protection against development and change that might negatively impact the outstanding universal value, or the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures'.[205]

Although little information is available as to how exactly the legal protection of World Heritage sites has been effectuated by the States Parties, it appears that legal protection of the sites designated in the early years of the convention is often lacking,[206] and that more recent sites are usually protected by existing legislation.[207]

Only a few States Parties have introduced special legislation to protect World Heritage sites. One of these is Australia, which already in 1983 adopted its World Heritage Property

Conservation Act 1983, which has now been replaced by the Environment Protection and Biodiversity Conservation Act (EPBC Act) 1999.[208] This Act includes provisions to enhance the protection, conservation and presentation of World Heritage properties.[209] Another example is South Africa. This State Party introduced national legislation to protect its World Heritage sites after it ratified the convention in 1997.[210]

The periodic report for Europe reveals that a small number of States Parties in this region have adopted special planning legislation for World Heritage sites.[211] The report considers the legislation for the protection of World Heritage sites for most of Europe to be adequate.[212]

A management plan for the property accompanied by an analysis or explanation should be available and copies must be included in the nomination document. The management plan should comprise information about the annual level of funding and its sources, the available expertise and training, the visitor facilities and projections of the number of visitors over several years, the approach towards presentation and promotion of the property and the number of staff involved.[213] The IUCN has put together a manual to help States Parties to prepare for the management plans for natural sites.[214]

The nominations must be submitted to the World Heritage Centre, which will forward complete nominations of natural and mixed properties to the IUCN for evaluation.[215] An IUCN evaluation procedure has been developed which consists of the following five elements: (1) Data Assembly, (2) External Review, (3) Field Inspection, (4) Other Sources of Information and (5) IUCN World Heritage Panel Review.[216]

Data assembly concerns the preparation of a data sheet by the UNEP-WCMC. The external review is carried out by about 15 experts, primarily from the IUCN, that have knowledge of the property. During a visit to the property by one or two IUCN experts, the site management is inspected and discussions with the authorities and other relevant stakeholders take place. Additional sources of information are studied in relation to the property, which include studies carried out by organisations such as the IUCN, UNEP, UNEP-WCMC and Birdlife International.[217] Finally, all this information is reviewed by the IUCN World Heritage Panel, which is responsible for the IUCN evaluation report of the property. This report will include a recommendation, which can be a recommendation for inscription, a recommendation not to inscribe or a recommendation for referral or deferral.[218] A State Party may decide to withdraw its nomination during the nomination process.[219]

The Committee decides whether a nominated property will be inscribed on the World Heritage List. It should be noted that as a consequence of the political dimensions of the process the Committee does not always follow the recommendations made by the IUCN for natural and mixed properties and that the pressure from States Parties with pending nominations can be substantial.[220] The decision by the Committee to include the Pitons in Saint Lucia in the World Heritage List is an example whereby the IUCN's recommendation against the inscription of these volcanic plugs, due to lack of outstanding universal value, was not followed.[221]

The Committee meets annually to decide which of the nominated properties should be inscribed, which should not be inscribed, and which should be referred or deferred.[222] A decision not to inscribe means that the property cannot be nominated again,[223] while a decision to refer or defer means that the property can be resubmitted to the Committee. In case of referral this means that additional information is needed, in case of deferral a more in-depth assessment or study is required.[224] A decision by the Committee to inscribe a

property includes a so-called Statement of Outstanding Universal Value in which it points out the criteria under which the property was inscribed, and what would be required to protect and manage the property. This statement forms the basis for the protection and management of the property in the future.[225] Further recommendations or requests regarding the protection and management of the property can be made by the Committee as well.[226]

Between 1992 and 2002, a total of 150 nominations for natural and mixed properties were assessed by the IUCN of which about half were inscribed on the list by the Committee.[227] This implies an average inscription of seven to eight natural and mixed properties per year. In 2006, eight natural and two mixed properties were nominated of which three natural properties (including one extension) were inscribed. In 2007, of the proposed eleven natural and two mixed properties, five natural and one mixed property were inscribed.

The minutes of the Committee meetings as well as the IUCN documentation reveal that the decision to inscribe does not necessarily imply that all aspects covered by the nomination document, such as the protection and management of the property, have already been implemented satisfactorily.[228] Very often additional requirements are attached to the decision to inscribe the property. These can for instance involve the preparation of a management plan, the increase of resources and/or staffing or the clarification of the boundaries.[229] It is also possible that the property is immediately included in the List of World Heritage in Danger.[230] An explanation as to where the line is drawn between a decision to defer a property and a decision to inscribe a property under certain conditions is not provided. During a recent workshop on the future of the World Heritage Convention the proposal was made to increase the transparency of these Committee decisions 'through development of clear criteria on inscriptions, referrals/deferrals and States Parties right of reply to Advisory Body recommendations'.[231]

In its publication *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance*, the IUCN establishes on the basis of a list of cases that the Committee's recommendations have indeed often led to the requested additional actions by the States Parties concerned.[232] However, it also concedes that States Parties do not always follow the recommendations of the Committee. The majority of these cases concern properties that are supposed to be transboundary, but on which States Parties seem reluctant to cooperate.[233]

After finalising the first cycle of periodic reporting in 2006, it became clear that many of the current properties in the World Heritage List have not been proposed or inscribed properly. Basic information concerning boundaries and buffer zones, management plans, statements of outstanding universal value and names of the sites often appears to be incorrect.[234] The periodic report for Europe reveals that 80 requests for modifications were made for this region alone.[235] It is indicated that the sites concerned will be re-assessed, which will take decades.[236]

The World Heritage Centre seems to play a significant role in the supervision of the process described above. To a certain extent its activities in this area are based on the description of its formal functions. Further clarification is provided in the UNESCO's World Heritage Centre's Natural Heritage Strategy.[237] One of the strategic orientations is to complete the World Heritage List, and the Centre's role, amongst others, is to advice and support States Parties in relation to the preparation of their tentative lists and nomination documents, and especially to encourage them to nominate natural and mixed sites

according to the IUCN's priorities.[238] However, the exact nature and extent of the World Heritage Centre's activities in this area remain unclear.

The implementation of the Global Strategy of the convention has been evaluated a few times. In 2007, an evaluation was carried out by the World Heritage Centre based on a questionnaire sent to all States Parties. The (just) 42 States Parties (mostly from Europe and North America) that completed and returned these questionnaires appeared to be quite satisfied with their level of implementation of the strategic objectives. Unfortunately, the presentation of the outcome by the World Heritage Centre only shows non-specific aggregate results.[239]

In a more recent document, it was indicated in relation to natural sites that 'the scale of inscriptions occurring during the period 2003-2009 does not allow for significant conclusions to be drawn'.[240] In other words, the under-representation of natural sites compared to cultural sites has not been adjusted. In relation to this issue the IUCN has stated that a perfect balance between these sites is simply not possible.[241] It is noted that 'a few inscriptions filled some of the gaps' as identified by the IUCN.[242] These evaluations pay limited attention to the conservation of the World Heritage sites, the development of capacity building and the creation of public awareness. It appears that the Natural Heritage Strategy as adopted in 2006 has not yet been evaluated.

The in-depth evaluations of the thematic programmes related to natural sites, such as the marine programme and the forest programme, have not yet taken place. The Committee has stated in relation to the latter programme that considerable progress in reaching the targets has been made.[243] The implementation of the strategy on climate change is still at an early stage.

Conclusion

The nomination procedure for World Heritage sites is structured in such a way that inscription of a new site on the World Heritage List implies that for that site implementation has largely been achieved.

It has appeared in practice that this is not always the case. Especially many early sites have not been inscribed properly. Furthermore, the Committee regularly attaches additional requirements to a decision to inscribe a property. Supervision of compliance with these requirements, or the lack of it, is not covered by the nomination procedure. These are not major issues and could all be addressed. Unfortunately, detailed information on any corrective measures is lacking and it is obvious that the convention needs to become more transparent on these points.

The most serious issue concerning the implementation of the World Heritage Convention is the lack of clarity in relation to the completion of the World Heritage List for natural and mixed sites. Implementation of the convention has not been achieved as long as many eligible sites have not yet been listed. The IUCN has indicated that an additional 100 natural/mixed sites should be added to complete the list, but it seems that States Parties are not geared towards addressing this gap. The sum of potential natural and mixed sites in the tentative lists of the States Parties far exceeds the number of the IUCN. It is unclear how many of these sites are really suitable for inscription and whether or not the sites identified by the IUCN have been included. One of the strategic orientations in the World Heritage Centre's natural heritage strategy is 'to complete the World Heritage List', but no guidance has been forthcoming on how to realise this objective.

The World Heritage Centre does play an important supervising role in the nomination procedure. However, a more pro-active approach would have been expected in relation to the completion of the World Heritage List. It also appears that a thorough evaluation of the various strategies and programmes has hardly taken place. The value of the latest evaluation of the Global Strategy of the convention is rather limited.

The overall conclusion is that the contribution of this element to the effectiveness to the convention is considered to be **unsatisfactory**.

2.6 Element 6: Reservations, Derogations and Other Exceptions

Benchmark: *For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).*

i. Reservations

The convention offers states the opportunity to make reservations when depositing their instruments of ratification, acceptance or accession. One possible reservation is actually laid down in the convention in the form of Article 16, paragraph 2 concerning the compulsory payment of contribution. Article 16, paragraph 1 requires States Parties to pay a compulsory contribution, which is a uniform percentage applicable to all States Parties to be determined by the General Assembly and restricted to no more than 1% of the contribution that has to be paid to the regular budget of UNESCO. Several states, including the United States of America, appear to have difficulties to accept a compulsory contribution, which must have been the reason to include Article 16, paragraph 2 in which it is laid down that a state may declare not to be bound by Article 16, paragraph 1. However, in Article 16, paragraph 4 it is stated that these states have to pay a contribution that 'should not be less than the contributions which they should have paid if they had been bound by the provisions of paragraph 1 of this Article'.[244] Twelve States Parties have declared not to be bound by Article 16, paragraph 1.[245]

The only other reservations made by States Parties concern the non-recognition of Israel by Iraq, Oman and Syria and a response by Israel to Oman in the form of the adoption of 'an attitude of complete reciprocity'.[246]

ii. Derogations

The convention does not include a derogation clause.

iii. Other Exceptions

This is not applicable to the World Heritage Convention.

iv. Conclusion

The convention offers states the possibility to make reservations and as discussed above some have done so. However, none of these reservations appear to have a significant negative effect on the realisation of the objectives of the convention. There are no

derogation clauses included in the convention, nor are there any other exceptions available to the States Parties. The contribution of this element to the effectiveness of the convention is therefore considered to be **satisfactory**.

2.7 Element 7: Monitoring

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).*

The convention has no specific provisions concerning the monitoring of World Heritage sites, but Article 29 deals with reporting by the States Parties, which should also cover the monitoring of sites.

However, monitoring procedures, which are in fact reporting procedures on monitoring, have been developed over the years and are laid down in the Operational Guidelines. The process of monitoring starts with the nomination of the property. The format for the nomination of the property requires the provision of detailed information on its present state of conservation,[247] which should include a description of the physical condition of the property, any threats to it as well as conservation measures in relation to the property.[248] Key indicators, such as data on species and/or ecosystems should be defined to measure change.[249] The nomination document has to state the intervals at which these indicators will be reviewed,[250] while earlier reports on the state of conservation of the property should be handed over.[251] Any factors that might affect the outstanding universal value of the property, such as those regarding development, environmental and/or tourism pressures, natural disasters and the number of inhabitants, should be stated in the document as well.[252] The information provided in the format for nominations constitutes the baseline data for future monitoring.

When inscription of the property on the World Heritage List has taken place, monitoring of the site ought to continue and the results should be included in the periodic report that States Parties, on a regional basis, must submit to the Committee every six years.[253] One of the purposes of the periodic report is 'to provide up-dated information about the World Heritage properties to record the changing circumstances and state of conservation of the properties'.[254] The format for periodic reporting stipulates that the use of key indicators to measure the state of conservation should be continued, and that the information has to be accurate and up-to-date.[255]

The first cycle of periodic reporting by region only started in 2000 and ended in 2006 with the European periodic report and action plan 2005-2006. It appears from the various regional reports that monitoring of the World Heritage sites is still inadequate. In the European periodic report it is stated that 'overall, monitoring is irregular and sporadic',[256] and the periodic report for Latin America and the Caribbean indicates that only 41% of World Heritage sites in that region have formal monitoring systems in place.[257] The other periodic reports paint a similar picture.[258]

The World Heritage Centre has analysed the reports of all regions and several observations were made regarding the reporting on the state of conservation of the World Heritage sites. Firstly, it appeared that the periodic reporting format is perceived by the States Parties as too complex, repetitive, and lacking indicators,[259] while they regard the Yes/No questions as unsuitable to describe the current state of conservation of a site.[260] Secondly, it became

clear that for the majority of sites, the statements of outstanding universal value, which form the core of the monitoring framework, are insufficient,[261] and that baseline data are fragmented or not available.[262] Actions will now be taken to address these shortcomings and it has been decided to observe a one year reporting pause to amend the reporting format. Its recent analysis of the available state of conservation reports has led the World Heritage Centre to conclude that there are 'enormous gaps in knowledge of the Convention' and that there is a 'lack of a system of indicators to effectively monitor the changes affecting World Heritage sites'.[263]

At a World Heritage monitoring workshop in 2002, attended by delegates from the three advisory bodies as well as invited experts, it was stressed that monitoring should enhance the process of periodic reporting by introducing long term monitoring programs instead of undertaking ad hoc assessments in preparation of periodic reports. Another suggestion has been to introduce a matrix reporting format based on indicators for the purpose of monitoring for the periodic report.[264] The workshop's presentations have been published in Paper Series No. 10 of the World Heritage Convention: Monitoring World Heritage.[265]

A second form of monitoring is the so-called reactive monitoring.[266] Reactive monitoring is defined as 'the reporting by the Secretariat, other sectors of UNESCO and the Advisory Bodies to the Committee on the state of conservation of specific World Heritage properties that are under threat'.[267] Although reporting by the States Parties is not included in the definition, it has been laid down in the Operational Guidelines that in case planned developments may have a negative effect on the state of conservation of a World Heritage property, the State Party concerned should send specific reports and impact studies on this to the Committee no later than the following February.[268]. Examples of these planned developments include proposals for mining operations and the construction of roads, bridges, hotels and ports in or near the site. The Committee will discuss the site's situation at its annual meeting and may decide to inscribe the property on the List of World Heritage in Danger.[269] The Committee annually reviews all properties on the list of World Heritage in Danger and may request specific monitoring reports on and expert missions to these properties.[270]

In its report *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance,* the IUCN has indicated that in this period almost half of the natural World Heritage sites were brought to the Committee's attention due to threats to their conservation status and 260 monitoring reports were prepared by the IUCN on the Committee's request.[271] In the same report it is further stated that it is 'difficult to track the positive effects of monitoring' since 'by its very nature reactive monitoring is not systematic and, in most cases, results may not be evident for decades or longer'.[272]

The World Heritage Centre has indicated that both monitoring systems, while necessary, are expensive and complex.[273] It is further stated that these shortcomings should be addressed by three types of action: (1) to introduce a simplified reporting system that would focus on the major issues and include an easy to use system of indicators, (2) to create better links between the two forms of monitoring to be able to increase the effectiveness of financial and technical resources, and (3) to focus on critical issues such as long term threats or the loss of outstanding universal value.[274]

It has been recognised by the Committee that it is not just the reporting on the state of conservation of World Heritage sites that is insufficient, but the actual monitoring of the sites needs to be improved as well. A number of actions have been taken with the intention to support the States Parties with the implementation of monitoring systems. Starting

point was the IUCN document *Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas*.[275] Published in 2000 by the World Commission on Protected Areas of the IUCN, this document clearly indicates that very little is known about the status of many of the protected areas in the world, including the World Heritage sites. Subsequently, it presents a framework for the development of assessment systems, which includes the effective use of indicators.[276]

Based on this IUCN framework, the Committee initiated the Enhancing our Heritage project in 2001, which started as a pilot in ten natural World Heritage sites for a period of four years. The objective of this joint IUCN and UNESCO project is to test the application of the IUCN framework with the intention to improve the monitoring and reporting systems in natural World Heritage sites. The roll-out of the project to other World Heritage sites is planned and a special toolkit has been developed to support States Parties with its implementation.[277]

To further enhance the monitoring of World Heritage sites, UNESCO signed an agreement in 2003 with the European Space Agency (ESA), which signalled the start of the use of satellite observation.[278] This relationship has evolved into the Open Initiative scheme, which has encouraged other space agencies such as the US National Aeronautics and Space Administration (NASA), Argentina's Comisión Nacional de Actividades Espaciales (CONAE) and space agencies from Brazil, Canada, India, Japan, Jordan, Morocco, Poland and Turkey to join as well.[279] One of its first projects has been the satellite monitoring of the central east African habitats of the highly threatened African mountain gorilla, of which only about 600 remain. The area includes several World Heritage sites or candidate sites in the Democratic Republic of Congo, Uganda and Rwanda. By using satellite monitoring, it is possible to map the whole area, which is useful for coordinating patrols and monitoring changes in ground cover.[280]

Conclusion

It has been acknowledged by the institutions of the convention that the monitoring of the natural World Heritage sites, as well as the reporting on this monitoring needs to be improved. Various actions have been taken to address the shortcomings. The Enhancing our Heritage project intends to improve the monitoring and reporting systems in natural World Heritage sites and additional initiatives have been taken to update the statements of outstanding universal value and to clarify the state of conservation of these sites.

Two reporting tools have been introduced by the institutions of the convention to monitor the States Parties' monitoring of the sites: the periodic reporting and the so-called reactive monitoring. The reporting on monitoring in the periodic report is the most significant since it comes directly from the States Parties and is pro-active as opposed to the reactive monitoring, which is put in train after a serious threat is identified. Unfortunately, there has only been one cycle of periodic reporting in the convention's existence so far. There appears to be a strong commitment to improve the format of the periodic reporting in relation to monitoring. However, it is also quite questionable whether the planned frequency of reporting (once in every six or seven years) is sufficient. The reactive monitoring procedure is certainly valuable in specific cases, but, as indicated by the IUCN, not systematic.

It may be expected that in relation to monitoring the various initiatives will have a beneficial effect in future years. At this stage, however, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.8 Element 8: Communication, Education and Public Awareness

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.*

A special provision in the convention is devoted to this element.[281] It requires States Parties to inform the public about the dangers that might threaten their heritage and the activities that are carried out under the convention. Educational and information programmes should strengthen the public's appreciation and respect for its heritage. Another relevant provision is Article 5(e), which encourages the establishment of national or regional centres for training in the protection, conservation and presentation of cultural and natural heritage.

The Committee's first strategic approach to this subject dates back to 1992, when objectives to increase public awareness, involvement and support were developed.[282] The World Heritage Centre developed the initial guidelines, which led to a Strategic Plan for World Heritage Documentation, Information and Education Activities that was adopted by the Committee in 1998.[283] It is interesting to note that this plan aims at two different target groups, the States Parties to support the implementation of the convention, and the international community 'towards a "global mission" to enhance public appreciation and respect for world heritage through information and educational activities'.[284]

This strategic plan highlights the importance of (1) the involvement of the local population and other stakeholders in relation to the nomination of and support for World Heritage sites, (2) the availability of high quality information, (3) a comprehensive World Heritage website (4) strong relations with the media and publishers, and (5) the implementation of education and information programmes and the UNESCO Special Project "Young People's Participation in World Heritage Preservation and Promotion".[285]

The first point is remarkable, since it implies a total shift away from the Committee's earlier approach, which was to advise States Parties to refrain from any publicity during the nomination procedure 'to avoid public embarrassment to those concerned' in case a nomination did not result in the inscription of the site on the World Heritage List.[286] It is now clearly stated in the Operational Guidelines that all relevant stakeholders should participate in the identification, nomination and protection of World Heritage sites.[287] The importance of the involvement of local communities is further underlined in the Budapest Declaration On World Heritage, which was adopted by the Committee in 2002.[288]

Local community resistance against the nomination of some properties could well have contributed to this new approach. The World Heritage publication *Challenges for the Millennium* states that 'striking a balance between conservation and development can be a very difficult endeavour'.[289] It took the Dutch government many years to convince local communities that the Wadden Sea area should be nominated to the World Heritage List.[290] Since the Wadden Sea area is shared with Germany and Denmark, the intention was to nominate it as a transboundary site by these three States Parties. However, local communities in Denmark were concerned about possible limitations to further development in the area and did not want to cooperate. Meanwhile, the site has been inscribed on the World Heritage List as a transboundary site of the Netherlands and Germany only.

The second point, the availability of high quality information, has led to the distribution of a substantial number of publications on various World Heritage issues. The World Heritage Committee considered the available general information material as inadequate to meet the demand from stakeholders for more specialised information about the convention. A quarterly magazine is published under the title *World Heritage*, and a variety of reports, including the periodic reports of the regions, are published under the so-called Paper Series label.[291] Celebrating the 30th anniversary of the convention in 2002, *World Heritage: Challenges for the Millennium* was published, which gives an overview of the convention's achievements and expectations.[292] The IUCN has published many well-researched documents concerning natural and mixed World Heritage sites.[293] The convention's newsletter, which was introduced in 1993, has been incorporated in the *World Heritage* magazine in 2006.[294] The World Heritage Information Kit and the World Heritage Brochure are available on the convention's website.[295]

The website of the World Heritage Centre, which is the subject of the third point, was launched in 1996 and has been redesigned a few times since. It is now claimed to be the most visited site within UNESCO with an average of 15,000 visits per day in 2006.[296] However, compared with the website of the Ramsar Convention, for instance, its content is somewhat limited. National periodic reports are not made available (only the regional reports), nor are the IUCN's state of conservation reports.

The strong relation between the World Heritage Centre and a long list of media and publishers, as indicated in the fourth point, has manifested itself in the form of various television and radio programmes, home video collections and books on World Heritage sites, including a 12-volume World Heritage Encyclopaedia in several languages.

The importance of education on World Heritage has always been emphasised by the Committee, but it was not until 1994 that it received serious attention. In that year, the Young People's Participation in Promoting and Preserving World Heritage project was launched jointly by the World Heritage Centre, the Associated Schools Project Network and the UNESCO Education Sector. The objective of the project is to incorporate education on World Heritage into secondary-school curricula, with a view to improve public awareness and participation in World Heritage conservation, especially amongst young people. For that purpose a special kit for teachers has been developed, which is now used in more than 130 states and made available in about 30 language versions.[297] It is not clear which schools participate and what the results are. To further support this initiative teacher-training workshops, youth fora, summer camps and conservation courses on World Heritage have been organised and networks between 'World Heritage' schools have been set up. It is the intention to extend the project to elementary schools.[298]

Close cooperation with the academic world in relation to heritage conservation has been developed as well. An international network, Forum UNESCO - University and Heritage, has been set up involving about 400 universities in 113 countries,[299] but since this network mainly focuses on cultural heritage, it is not within the scope of this study.

The World Heritage emblem has been introduced by the Committee in 1978 to identify properties inscribed on the World Heritage List. The emblem features a globe and carries the text 'World Heritage Patrimoine Mondial'. The words 'Patrimoine Mondial' can be replaced by a translation in the national language of the State Party. The Committee has launched 'Guidelines and Principles for the Use of the World Heritage Emblem' and strict rules for the use of the emblem have been laid down in the Operational Guidelines.[300] Besides the marking of World Heritage properties, the emblem is also used to identify

projects that are carried out under the auspices of the convention. Under strict conditions the emblem may also be used by sponsors, for instance on their products. The agreed fee should benefit the World Heritage Fund.[301]

The various CEPA activities initiated by the World Heritage Committee and the World Heritage Centre are partly focused on the international community, and partly on the States Parties to help them implement their CEPA activities in relation to the convention. In the Operational Guidelines of the convention, States Parties are encouraged 'to raise awareness of the need to preserve World Heritage',[302] and 'to develop educational activities related to World Heritage'.[303]

The activities of the States Parties in this area are discussed in the periodic reports, but not in great detail. It appears that many States Parties promote their World Heritage sites and the convention to some extent and/or have initiated some educational, information-disseminating and awareness-raising activities. In the Periodic Report for Europe 2005-2006 it is stated that 'for the majority of European States Parties, the promotion of World Heritage properties and the Convention is achieved through publications, films, media campaigns, internet', but that 51% of the States Parties consider their activities inadequate.[304] The periodic report 2004 for Latin America and the Caribbean mentions that 77% of the States Parties have taken steps to raise awareness and that 57% of the States Parties participate in the 'World Heritage in Young Hands' project.[305] The fourth strategic objective of the Budapest Declaration, which was adopted in 2002, is 'to increase public awareness, involvement and support for World Heritage through communication'.[306] In an evaluation of this objective in 2007, it appears that 'numerous and diversified activities have been undertaken or are foreseen in this field',[307] but all these activities appear to be ad hoc in nature and there is no mention of the implementation of national CEPA programmes.

Finally, it is noteworthy that promotional activities have also been set up with the support of the private sector. The World Heritage Alliance and Friends of World Heritage are two initiatives involving the participation of the travel services company Expedia. The World Heritage Alliance was launched by Expedia and the United Nations Foundation with the objective to promote sustainable tourism and awareness of World Heritage sites and communities around the world.[308]

The three partners of Friends of World Heritage are Expedia, United Nations Foundation and the World Heritage Centre. The mission of Friends of World Heritage is 'to foster a constituency of World Heritage supporters and travellers to ensure the protection of World Heritage sites for today's travellers and future generations'.[309] People visiting the website are encouraged to discuss the importance of World Heritage, to volunteer for conservation activities at World Heritage sites, to travel to these sites to support local economic development, to sign up to become a Friend and to contribute to the Friends of World Heritage Fund. The resources raised through this fund are used for World Heritage projects and priorities. It is stated that contributions from individuals will be matched twice over to a maximum of USD 50,000.[310]

Conclusion

It should be stated that the range of CEPA activities initiated by the bodies of the convention over the years is impressive. Nevertheless, there is still room for improvement.

The 1998 strategic plan, whose structure appears to be somewhat confusing, is now 12 years old and needs updating. The most important element of the plan is the emphasis on

the involvement of local communities in the nomination, protection and management of the World Heritage sites. On several occasions the reluctance of the local community did seem to affect the nomination and protection of a site and this issue can only be resolved by creating public awareness and, more importantly, support.

The numerous publications by the World Heritage Centre are attractively presented and informative. The *World Heritage* magazine is a good example. The so-called paper series dealing with various topics concerning the convention is very valuable. Although the World Heritage Centre indicates on its website and in the magazine that hard copies of the paper series are available on request, this appears not to be the case in practice.[311] Well-researched publications concerning natural and mixed heritage are published by the IUCN.

The website of the convention attracts many visitors, but could be more comprehensive.

It seems that the World Heritage Centre has successfully promoted the convention to the public, using various media and publishers as well as the World Heritage emblem.

The Young People's Participation in Promoting and Preserving World Heritage project appears to be impressive, but more information could be made available about the participating schools and the experiences with the project.

The information regarding the level of implementation of CEPA activities by the States Parties is limited. The data that can be found in the various periodic reports for the regions and in some of the convention's documents suggest that the majority of the States Parties should increase their efforts. It can therefore be assumed that less than three-quarters of the States Parties have implemented a national CEPA programme.

Taking all these points into account the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.9 Element 9: Incentives

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.*

The convention offers the States Parties various incentives, which this study distinguishes into the financial resources incentive, the international assistance incentive, the information incentive, the cooperation incentive, and the marketing incentive. The financial incentive is especially important for States Parties that are developing countries.

The incentives will be discussed in more detail below.

i. The Financial Resources Incentive

The importance of this incentive was already recognised by the authors of the convention, who established a Fund for the Protection of the World Cultural and Natural Heritage of Outstanding Universal Value, called 'the World Heritage Fund'.[312] The resources of the World Heritage Fund consist of (1) the compulsory and voluntary contributions of the States Parties,[313] supplemented by (2) contributions, gifts or bequests, which may be received from other states, UNESCO and other UN organisations, public or private bodies or individuals,[314] (3) any interest on the resources of the fund,[315] (4) funds raised by collections and receipts from events organised for the benefit of the fund,[316] and (5) other resources.[317]

The Committee decides for which programmes and projects the contributions will be used, although certain donations can be made benefiting specific causes provided these are not political.[318] States Parties are also supposed to provide assistance to international fund-raising campaigns on behalf of the fund.[319]

It has been laid down in the Financial Regulations for the World Heritage Fund that payments from this fund should be made to assist in the protection of the World Heritage sites.[320] It is further stated that the World Heritage Fund could be used for the following purposes:

— studies concerning the artistic, scientific and technical problems raised by the protection, conservation, presentation and rehabilitation of the cultural and natural heritage, as defined under the terms of the Convention;
— provision of experts, technicians and skilled labour to ensure that the approved work is correctly carried out;
— training of staff and specialists at all levels in the field of identification, protection, conservation, presentation and rehabilitation of the cultural and natural heritage;
— supply of equipment that the state concerned does not possess or is not in a position to acquire;
— low-interest or interest-free loans that might be repayable on a long-term basis; and
— the granting, in exceptional cases and for special reasons, of non-repayable subsidies.[321]

The size of the World Heritage Fund for the 2010-2011 biennium is budgeted at about USD 7 million of which almost half is earmarked for the protection of the World Heritage sites.[322] This amount is only a relatively small part of the overall budget available to the convention for this purpose.[323] The World Heritage Fund's main income derives from the States Parties' compulsory contributions, which will now no longer increase just as a result of the growth in the number of States Parties, since universal membership has nearly been reached.[324] The expectation that the Word Heritage Fund would also receive voluntary contributions from the States Parties as well as contributions from UNESCO and public and private bodies did not materialise in practice. It appears that states and other stakeholders, prefer to voluntary contribute to the so-called Extra-budgetary funds, instead of directly to the World Heritage Fund.[325]

The convention does receive additional funding from these Extra-budgetary funds and from UNESCO's regular budget for the protection of the World Heritage sites.[326] The UNESCO funding for the biennium 2010-2011 is budgeted at almost USD 11 million, while the Extra-budgetary funds will provide about USD 28 million. Both sums are substantially larger than the budgeted amount from the World Heritage Fund,[327] which has been the case in previous years as well.[328]

One important contributor to the Extra-budgetary funds is the United Nations Foundation (UNF), which was established in 1998 with a gift of USD 1 billion from entrepreneur and philanthropist Ted Turner.[329] Between 1998-2002 the UNF contributed about USD 40 million to World Heritage biodiversity projects, benefiting 48 natural World Heritage sites and 26 States Parties.[330] Examples of projects supported by the UNF are the control of introduced species in the Galápagos Islands, Ecuador and the protection of World Heritage sites in the Democratic Republic of Congo.[331]

Another example of additional funding available to natural World Heritage sites is the Community Management of Protected Areas for Conservation (COMPACT) initiative, which is a joint effort by the UNDP-GEF's Small Grants Programme, the UNF and the Biodiversity Convention with the objective to demonstrate how community-based initiatives can increase the effectiveness of biodiversity conservation in natural World Heritage sites.[332]

The so-called Funds in Trust, based on bilateral cooperation agreements between the World Heritage Centre and several States Parties that are developed countries, contribute to the Extra-budgetary funds as well.[333] These donations are granted to support specific projects often in selected countries.[334] Financial support is also received from organisations such as the MacArthur Foundation and the Grand Circle Foundation as well as from the private sector.[335] So far, the funds raised from the latter have been limited. The expected income for 2008 was estimated at USD 450,000.[336] The 2002 World Heritage Partnership for Conservation (PACT) initiative is a good basis for the World Heritage Centre to further increase this type of additional funding.[337]

The financial resources incentive appears to be under pressure. In his introduction to the 30th report of the World Heritage Centre to the Committee in 2006, the Director of the World Heritage Centre indicates that 'there is a growing gap between the resources at our disposal and our ability to fulfil our mission'. The number of World Heritage sites has been increasing continually, while the amounts available through the World Heritage Fund have been falling.[338] More funding is requested from the States Parties and other stakeholders.[339] A special African World Heritage Fund has been launched in 2006 to be able to support the World Heritage sites in Africa that need additional funding. Although South Africa has donated USD 3.5 million to help launch the fund, it is stated in the Periodic Report for Africa that the financing for this fund should be provided by the 'large multinationals which derive great wealth and prosperity from the raw materials they extract from the African continent'.[340]

Although the financial resources as discussed above will largely be used to provide international assistance (see below), a distinction should still be made between these two incentives as the former relates to the financial support that is made available, while the latter comprises the technical and professional assistance provided under the convention.

ii. The International Assistance Incentive

It has been laid down in Article 7 of the convention that 'international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international co-operation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage'.[341] Further provisions that deal with international assistance are Article 13, paragraphs 1-5 (procedure) and Articles 19-29 (conditions and arrangements). It is stated in Article 19 that 'any State Party to this Convention may request international assistance for property forming part of the cultural or natural heritage of outstanding universal value situated within its territory'. However, to become eligible, the State Party involved should have paid all its contributions due to the World Heritage Fund.[342] A detailed procedure regarding international assistance can be found in the Operational Guidelines.[343] Several types of international assistance are distinguished by the Committee: (1) emergency assistance, (2) preparatory assistance and (3) conservation and management assistance.[344]

The emergency assistance has been established to support sites that have suffered damage due to sudden and unexpected natural or man-made disasters. The convention requires that these sites should be given priority consideration and that a 'reserve fund' should be established for such contingencies.[345] A request for emergency assistance was for instance granted to Uganda in 2001 for the Rwenzori Mountains National Park after it had been occupied by rebels and resources were urgently needed to repair infrastructure and to equip guards.[346] More recently, a Rapid Response Facility has been set up by the World Heritage Centre in cooperation with Flora and Fauna International and the UNF to be able to provide direct assistance to and mobilise funds rapidly for natural World Heritage sites in case of emergencies.[347]

Preparatory assistance is available to help States Parties to prepare tentative lists and nominations for the World Heritage List as well as to prepare requests for training or technical support.[348]

Several provisions in the convention underline the importance of training and research,[349] and the assistance to States Parties in this area has been established since the 1980s. Its initially ad hoc nature was abandoned with the adoption of the Global Training Strategy for World Cultural and Natural Heritage in 2001.[350] It has been stated by the Committee that 'training of managers and students is among the most important activities of the Convention, and the single most relevant long-term investment'.[351] In relation to natural World Heritage sites, the IUCN has developed the *Global Framework Programme for Capacity Development on Natural Heritage,* which was adopted in 2004.[352] One of the principles of the programme is that capacity development should be a key priority for the World Heritage Committee.[353] The budget needed for the implementation of the programme was estimated at USD 700,000 for a five year period.[354] It appears that the actual annual budget up to 2008 has been USD 26,000, which the IUCN considers to be 'the most critically under-funded aspect of the Convention'.[355] The IUCN has also prepared resource manuals and several volumes on subjects such as sustainable tourism and management planning of protected areas.[356] Various courses on the protection and management of World Heritage sites have been set up, ranging from short courses and training workshops to graduate university programs.[357] An example of this type of assistance is the granting of a USD 20,000 training request from Benin to organise a regional workshop for Western Africa on the management of protected areas.[358] Thirty-five percent of training and research assistance are allocated to natural and 65 percent to cultural sites.[359]

Technical cooperation includes the provision of experts and/or equipment for the conservation and management of World Heritage sites. Technical support was for instance granted to Kenya to prepare management plans for their World Heritage sites Mount Kenya and Lake Turkana Parks.[360] Two-thirds of this type of assistance is to be dedicated to cultural and one-third to natural sites.[361]

Assistance for education, information and awareness raising projects is also available, which could involve printing or translating materials.

The Committee has developed principles and priorities in relation to the granting of international assistance.[362] First priority is given to sites that are inscribed on the List of World Heritage in Danger.[363] The basis for this list can be found in the convention,[364] and further clarification on the inscription of properties on the List of World Heritage in Danger has been laid down in the Operational Guidelines,[365] including an overview of all potential dangers that could threaten World Heritage sites.[366] When a property is inscribed on this

list, a program of corrective action is developed and adopted by the Committee, if possible, in consultation with the State Party concerned.[367] This program should be implemented immediately.[368] The aim is to eliminate the threats facing the site as soon as possible and so to be able to remove the site from the list.

In a number of cases this approach has been successful,[369] but it also happens that sites remain in the list of World Heritage in Danger for many years.[370] Currently, the number of World Heritage sites in the list is 31, of which 16 in the territories of 11 different States Parties, are natural or mixed.[371] It appears that some States Parties consider the inscription of one of their sites on the List of World Heritage in Danger as a welcome support for the protection and conservation of their site,[372] while others may perceive it as embarrassing.[373]

In 2005, an independent evaluation of the international assistance under the World Heritage Convention for the period 1998-2003 was presented, which included a long list of observations and recommendations for improvement.[374] The report indicates for instance that a policy in relation to the distribution of grants is lacking, that site supervision is not systematic, and that projects are insufficiently monitored and evaluated. It is further recommended to increase the size of individual grants, which in many cases are considered to be too small in relation to the scale of the problem and the expected results, to focus on the lower income countries, and to combine assistance for training and research, technical cooperation and promotion and education into one 'conservation and management assistance' category (which has now been implemented).[375] The Committee examined the recommendations in 2006 and measures were taken to address the shortcomings mentioned in the report.[376]

iii. The Information Incentive

The World Heritage Centre as well as the Advisory Bodies, such as the IUCN, have developed a wealth of data in relation to the protection of World Heritage sites. In its Natural Heritage Strategy, the World Heritage Centre identifies as one of its tasks to act as a clearing house, for which role an adequate information management system has been designed.[377]

iv. The Cooperation Incentive

Cooperation between States Parties is encouraged by the Committee in several ways. An example is the introduction of periodic reporting per region, which has as one of its objectives 'to be a mechanism for regional cooperation and exchange of information and experiences between States Parties concerning the implementation of the Convention and World Heritage conservation'.[378] Although the individual States Parties complete the questionnaires for the periodic report, States Parties from the same region are supposed to cooperate in order to prepare the final report and an action plan for the region.[379]

Another area where cooperation between States Parties is recommended concerns transboundary sites. It is stated in the Operational Guidelines that, if possible, transboundary nominations should be jointly prepared and submitted by States Parties and that the site should be managed in partnership.[380] There are currently about 20 transboundary sites. The recommendations made by the Committee at inscription concerning transboundary sites are often not acted upon by the States Parties, according to the IUCN.[381]

v. The Marketing Incentive

Having one or more sites in the World Heritage List can bring considerable prestige to a State Party. The Periodic Report for Europe mentions, for instance, that for many States Parties honour and prestige were the key motivation to nominate a property for the World Heritage List.[382] Once a World Heritage site is established, the State Party will undoubtedly use this as a touristic selling point. Although statistical data are somewhat limited, it is widely acknowledged that a property's designation as World Heritage site leads to a substantial increase in visitor numbers.[383]

Since the tourism industry has grown dramatically in the last two decades, due to increased prosperity and cheaper transport, the pressure on many World Heritage sites has become very high.[384] Between 1986 and 2004, seventy World Heritage sites, of which thirty-nine natural sites (56%), have been reported to the Committee as threatened by tourism.[385] One prominent example is the Galápagos Islands (Ecuador), which have now been placed in the list of World Heritage in Danger.[386]

The Committee has recognised that the threats caused by tourism can be addressed by proper site management and in 2001 the World Heritage Centre developed a World Heritage Sustainable Tourism Programme with the objective 'to aid the Committee and site management, using tourism as a positive force to retain site values and to help to mitigate threats'.[387] At the same time, steps were taken to engage the tourism industry as well as travellers in the protection of World Heritage sites by promoting sustainable practices.[388]

vi. Conclusion

The convention provides meaningful financial incentives, which benefit States Parties in need of financial support. The limitations of the resources of the World Heritage Fund have, however, become increasingly clear. Additional forms of funding are essential to be able to continue this form of assistance. The pro-active approach taken by the World Heritage Centre to find new partners to contribute to the extra-budgetary Fund appears to be successful. In relation to the natural World Heritage sites, the additional funding received from the UN Foundation has been a remarkable contribution in this regard.

The international assistance incentive is very well developed under the convention and the various manifestations of this assistance appear to be quite useful to many States Parties. An exception appears to be the execution of the Global Training Strategy, which is hampered by a lack of funding.

The marketing incentive is especially valuable now World Heritage status has become a powerful promotional tool. The increased pressure from tourism that threatens many sites should be addressed by proper management and actions have been taken to mitigate this problem.

Although its financial resources need further strengthening, the incentives the convention currently can offer its States Parties are convincing and the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.10 Element 10: Compliance and Enforcement

Benchmark I: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the*

implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.

Benchmark II: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

This sub-section looks in more detail at the three major aspects of compliance and enforcement under the World Heritage Convention. In the first paragraph the compliance with and enforcement of the World Heritage Convention at the national level will be discussed, while the second paragraph will deal with the supervisory measures that are available under the convention and the compliance by the States Parties with the reporting requirements under the convention. In the third paragraph the supervision by the World Heritage Centre of the compliance with and enforcement of the convention by the States Parties will be looked at. Although not relevant to the final outcome of the assessment, the international dispute settlement procedures that might be available under the convention will be briefly looked at in this sub-section as well.

i. Compliance with and Enforcement of the World Heritage Convention at the National Level

The information on this subject is limited. As discussed in sub-section 2.5, implementation of the convention is currently unsatisfactory, mainly because many natural and mixed sites still have to be nominated. The sites that are inscribed on the World Heritage List are supposed to be legally protected and although not many States Parties have introduced special legislation to protect World Heritage sites, the sites are usually protected by the application of existing national legislation. Information on the quality of this legislation and the level of enforcement by each State Party is not made available by the World Heritage Centre. Other aspects of compliance, such as the sustainable management of the World Heritage sites, could also become issues, but again little information is made available. One of the major threats to World Heritage sites appears to be development on or near the sites, which could negatively impact on their outstanding universal value.[389] This seems to occur quite frequently and some of these cases end up in the national courts of the States Parties.

The application of the World Heritage Convention in national courts is rather limited. There are at least two known cases in which the convention played a crucial role in relation to the protection of a World Heritage site, one in the UK and one in Germany.

The UK case concerned an application for the extraction of coal near the Hadrian's Wall World Heritage site in Northumberland.[390] In this case, an Inspector had to assess the proposed development and recommended to allow the extraction. The Hadrian's Wall zone did not enjoy statutory protection at that stage. However, the Inspector's conclusion was not adopted by Northumberland County Council, nor was it by the Secretary of State who concluded that 'in the particular circumstances of this case the impact of the proposals on

the setting of Hadrian's Wall and the World Heritage Site would not be acceptable'.[391] The case ended up in court and the Queen's Bench Division affirmed the decision of the Secretary of State. Since this case, the importance of the designation of World Heritage sites has been integrated in the UK Planning Policy Guidance 15, published in 1994.[392]

More recently, a German court decided in favour of the building of a bridge over the river Elbe, in Dresden's Elbe Valley, a World Heritage site.[393] The Committee had warned the national and municipal authorities that if this development would go ahead, delisting of the World Heritage site could be unavoidable. However, the court held that the World Heritage Convention in concept and wording does not offer an absolute protection against any change of a World Heritage site. Under the terms of the convention the sovereignty of the States Parties should be respected,[394] while the international dimension concerns international cooperation and assistance.[395] The outcome of a local referendum in favour of the bridge could prevail in a conflict regarding the development within a World Heritage site. This is especially the case when a compromise could not be found in negotiations.[396] Meanwhile, the Committee has decided at its 33rd session in 2009 to delete the site from the World Heritage List.

As discussed in sub-section 2.5, Australia is one of the few States Parties that has (already in 1983) introduced special legislation for the protection of World Heritage sites. This legislation was replaced in 1999 by the Environment Protection and Biodiversity Conservation Act (EPBC Act). As of 1983, a number of interesting cases concerning World Heritage sites have come before the courts. The first and perhaps most famous one is the *Tasmanian Dam* case.[397] This case concerned the approval by the government of the Australian state of Tasmania of the construction of a hydro-electric dam, which would have caused the flooding of a large part of 'the Tasmanian Wilderness' World Heritage site. The Commonwealth government intended to halt this development and invoked the World Heritage Properties Conservation Act 1983. The Tasmanian government disagreed and the case ended before the High Court. The interpretation of articles 4 and 5 of the World Heritage Convention, regarding the national and international protection of the cultural and natural heritage was at the centre of this case. The Australian High Court held, by a narrow majority, that the provisions in these articles impose an international obligation on Australia to take appropriate measures to preserve their World Heritage site in Tasmania. Interestingly, the Court also dealt with the vague terminology that is often used in international treaties, such as 'to the utmost of its own resources',[398] and 'in so far as possible'.[399] Although the use of this terminology is generally considered to weaken the legislation, the Australian High Court stated on this subject that 'indeed, there would be little point in adding qualifications 'in so far as possible' and 'as far as appropriate for each country' unless the article imposed an obligation'.[400] The judgment of the Court made the construction of the dam unlawful and the World Heritage site was saved. The *Tasmanian Dam* case is still referred to by experts in Australian environmental law as 'one of the most celebrated in Australian legal history'.[401]

Other Australian cases followed, such as the *Tasmanian Forest* case.[402] This case concerned the Lemonthyme and Southern Forests of Tasmania, which were not yet nominated by the Commonwealth of Australia for the World Heritage List. Legislation was introduced to establish a Commission of Inquiry to assess the World Heritage potential of the site and to be able to introduce an interim protection regime to cease the logging in the area by the Tasmanian Forestry Commission and a private timber operator. However, since the logging continued after the interim protection scheme was brought in, the responsible

Commonwealth Minister had to bring the case before the High Court, which had two questions to answer: Could the Commonwealth (1) establish the Commission of Inquiry, and (2) introduce the interim protection relying on the World Heritage Convention?. The Court's decision was affirmative on both questions.[403]

The next case concerned the Daintree rainforest in Queensland.[404] The Commonwealth of Australia nominated the site for World Heritage listing, which was opposed by Queensland because of concerns that the timber industry would suffer. The site was accepted by the World Heritage Committee in 1988 and Queensland brought the case before the High Court contesting the World Heritage value of the area. The Court decided in favour of the Commonwealth, stating that 'the status of a particular property as one of outstanding universal value forming part of the cultural heritage or natural heritage is an objective fact, ascertainable by reference to its qualities; but, as evaluation involves matters of judgment and degree, an evaluation of the property made by competent authorities under the Convention is the best evidence of its status available to the international community'.[405]

In the *Hinchinbrook* case, the development of a resort and various other works on the coast opposite to Hinchinbrook Island, which is part of the Great Barrier Reef World Heritage site, formed the basis for a dispute between the Friends of Hinchinbrook Society and the Commonwealth Minister for the Environment.[406] The Commonwealth Minister for the Environment gave his consent to this development. This decision was disputed by the Friends of Hinchinbrook Society, which claimed that damage to the area would be unavoidable.[407] The Federal Court of Australia dismissed the application, also on appeal, and decided that if the Minister concludes that the risk damage will be insignificant, then 'there is only one conclusion to which he could come, as he here did, namely to give his consent'.[408]

The following Australian case was the first full trial case decided under the new EPBC Act. The *Booth v. Bosworth* case concerned the World Heritage site Wet Tropics of Queensland, one of the Australia's rainforests.[409] A lychee farm, close to the site, had erected 14 aerial electric fences to protect its fruit from the spectacled flying foxes (fruit bats). Each year these fences killed about 10,000 fruit bats out of an estimated total of less than 100,000. The plaintiff claimed that this action was likely to have a significant impact on the World Heritage site since these animals are crucial for the dispersal of seeds. An initial injunction was lost by the plaintiff, but the substantive case, decided in 2001, was successful. This case is especially important since the opposed activity took place outside the World Heritage site itself.[410]

This was also an issue in *the Nathan Dam case*.[411] This dam was considered necessary to provide water for the irrigation of 30,000 hectares of land, mainly for growing cotton. However, the chemicals used in cotton farming could ultimately end up 500 km downstream in the Great Barrier Reef, a World Heritage site. The Australian environment minister, who had approved the dam claimed that an assessment and approval under the EPBC Act was not required in this case. The Federal Court of Australia decided otherwise and the approval of the Nathan Dam was overturned.[412]

The number of cases involving World Heritage sites in Australia is remarkable, often resulting in the protection of the site in question. As Rothwell and Boer put it: 'no other country has experienced the controversy and litigation that has been generated in Australia under this [World Heritage] Convention'.[413]

ii. Supervisory Measures regarding the World Heritage Convention at the International Level

States Parties are supposed to comply with the obligations laid down in the convention and the operational guidelines. The institutions of the convention have several means available to supervise compliance by the States Parties. The most obvious form of supervision is periodic reporting by the States Parties, which requirement is laid down in the convention.[414]

It was not until 1998 that the reporting requirement was worked out in detail by the Committee. Every six years, each State Party has to submit a periodic report to the Committee.[415] The Committee has chosen a regional reporting approach, which means that, besides compiling their individual reports, States Parties from a (sub)-region cooperate in the preparation of the periodic reports and action programmes for their region. The individual reports of the States Parties as well as the results of the regional meetings are consolidated by the World Heritage Centre into regional reports and programmes.[416] This approach is intended to promote regional collaboration and the exchange of information and experiences between the States Parties. The five regions are: Africa, Arab States, Europe & North America, Latin America & the Caribbean, and Asia & the Pacific and the available periodic reports represent these regions. However, the US and Canada, although part of the Europe & North America region, only publish their individual reports. A special format has been developed for the periodic reports.[417] The Committee has stated that the periodic reporting has to provide:

— an assessment of the application of the World Heritage Convention by the State Party;
— an assessment as to whether the outstanding universal value of the properties inscribed on the World Heritage List is being maintained over time;
— up-dated information about the World Heritage properties to record the changing circumstances and state of conservation of the properties;
— a mechanism for regional co-operation and exchange of information and experiences between States Parties concerning the implementation of the Convention and World Heritage conservation.[418]

The Committee examines the reports and will, where necessary, formulate recommendations to the States Parties.[419]

The first cycle of reporting was completed in 2006 and the reports have been evaluated by the World Heritage Centre. This has resulted in a list of recommendations for improvements, including simplifying the questionnaire, developing indicators, and formulating Statements of Outstanding Universal Value, where lacking.[420] It also became clear that a so-called retrospective inventory had to take place, comparing data in the original nomination dossiers with data in the periodic reports.[421] Before the commencement of the second cycle of reporting, 2007 was designated a reflection year.[422] The Committee reported in 2008 that all these actions had either taken place or were still ongoing.[423] For instance, the retrospective inventories for Europe and the Arab states had been finalised, while those for other regions still had to be carried out.[424] Meanwhile, the preparations for the second cycle of reporting have started in 2008 for the Arab states and their report should be ready for examination by the Committee in 2010.[425] The other regions will follow

and the second cycle should be finalised in 2014 with the reports for Europe and North America.[426]

The States Parties are of the opinion that the first cycle of reporting has been successful,[427] and that it has strengthened regional cooperation.[428] However, the evaluation of the World Heritage Centre also reveals that the monitoring of many sites is lacking or insufficient,[429] that a substantial number of properties are not covered by the reporting exercise,[430] and that there is 'a lack of replies to certain questions'.[431] It remains unclear whether all States Parties have submitted their individual periodic reports to the World Heritage Centre. These individual reports are not made available on the website of the convention and the quality of the replies to the questionnaires can therefore not be independently established.

The second form of supervision is the process of reactive monitoring, which has been defined as 'the reporting by the Secretariat, other sectors of UNESCO and the Advisory Bodies to the Committee on the state of conservation of specific World Heritage properties that are under threat'.[432] States Parties are expected to inform the Committee 'as soon as possible' and 'before making any decision' about any new developments that may affect the outstanding universal value of a site.[433] Specific reports and impact studies have to be submitted by the States Parties to the Committee in case certain developments might have an effect on the state of conservation of their World Heritage site.[434] The World Heritage Centre could also receive information from other sources than the State Party about the deterioration of a World Heritage site. In that case, it will verify the source as well as the information in consultation with the State Party.[435] If one of these situations occurs, the World Heritage Centre will send the available information to the relevant Advisory Body with the request to give its comments.[436] This may lead to a state of conservation or monitoring report concerning the site that will be send to the Committee, which then has the following options open to it: (1) no further action is necessary, (2) although the property is seriously deteriorated, it could and should be restored, (3) the site should be inscribed on the list of World Heritage in Danger, (4) the site should be de-listed, (5) more information is required.[437] The last option may result in the sending of a fact-finding mission or the consultation of specialists.[438]

It is indicated by the World Heritage Centre that until 2006 a total of 142 sites were assessed through reactive monitoring.[439] This figure is difficult to reconcile with the ones mentioned in the IUCN report *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance*.[440] In this publication, the IUCN indicates that in this 10-year period almost half of the natural World Heritage sites were brought to the attention of the Bureau or Committee as a result of threats to their conservation status and that the IUCN has submitted 260 monitoring reports to the World Heritage Centre.[441] The report points out that in relation to natural sites the reactive monitoring process has in many cases been successful and ten cases are highlighted to underline this statement.[442] In eight of these ten sites, major development projects, such as road construction, mining operations and hotel building, were avoided or adjusted and in four sites the management was improved.[443] However, the report does also reveal that in some cases the reactive monitoring did not yield positive results. Usually, this concerned sites affected by ongoing war or civil unrest,[444] but other causes, such as continuing mining activities,[445] are also mentioned.[446] The monitoring reports are not available on the website of the convention.

The procedure for the inscription of a site on the list of World Heritage in Danger has been discussed in sub-section 2.9 (ii).[447] The World Heritage Centre and the IUCN (for natural sites) are involved in this procedure. The state of all the sites on this list is annually reviewed

by the Committee.[448] Some States Parties welcome the inscription of one of their sites, but other States Parties perceive it as embarrassing and go to great lengths to avoid it.[449] Cameron has stated that 'it is perceived as a black mark, a criticism to be avoided at all costs'.[450] The consent of a State Party is not required, although some States Parties have a different view,[451] and political pressure can be intense.[452]

In some cases inscription on the list of World Heritage in Danger by the Committee is clearly intended to force a State Party into compliance. This will often be the case if an unwelcome development threatens a site and the Committee's aim is to prevent this from happening.

In a recent report on World Heritage in Danger, the IUCN concludes that in about 50% of the cases concerning the inscription on and removal from the list the Committee does not follow the advice of the World Heritage Centre and the IUCN.[453] The IUCN advises the Committee to separate between the technical assessment of these sites and the political considerations, including the wishes of the State Party concerned, and to focus on the procedure as laid down in the Operational Guidelines.[454] The report also underlines that the average number of years that a natural property is on the list is twelve and that 'it is questionable whether a property can be considered to remain "in danger" for such long periods and whether another mechanism is needed to address these properties'.[455]

An interesting new development regarding the World Heritage in Danger procedure concerns the filing of petitions by NGOs and individuals from several countries, requesting the Committee to add certain World Heritage sites to the list because of the increasing threat climate change poses to the integrity of these sites.[456] Examples are the petitions for the Great Barrier Reef in Australia, the Waterton-Glacier International Peace Park in the USA and Canada and the Belize Barrier Reserve System in Belize. Since 2004, at least seven petitions were filed. The Committee has so far not added any of these sites to the List of World Heritage in Danger, but seemed sufficiently pressed to take some actions to address the issue of climate change, such as organising an expert meeting and drafting a strategy to assist the States Parties with the implementation of management responses to climate change.[457]

The most powerful tool available to the Committee is the deletion of the site from the World Heritage List.[458] A procedure for deletion has been laid down in the Operational Guidelines.[459] The delisting of a World Heritage site requires a majority of two-thirds of the Committee members present and voting and the State Party concerned should be consulted.[460] It could take place in the following circumstances:

— where the property has deteriorated to the extent that it has lost those characteristics which determined its inclusion in the World Heritage List; and
— where the intrinsic qualities of a World Heritage site were already threatened at the time of its nomination by action of man and where the necessary corrective measures as outlined by the State Party at the time, have not been taken within the time proposed.[461]

The Committee has long been very reluctant to use this 'big stick', but in 2007 the first site was removed from the World Heritage List. This concerned the Arabian Oryx Sanctuary in Oman, which is home to this rare antelope and some other endangered species. The Oman government decided to reduce the size of the sanctuary by 90 percent, while the number of

arabian oryx in the site dwindled from 450 in 1996 to 65 in 2007, with only four breeding pairs left.[462]

In a recent interview, Mrs. Françoise Rivière, Assistant Director-General for Culture at UNESCO stated that 'the delisting of a site - in this case, the Arabian Oryx Sanctuary in Oman - is a very unfortunate event, as it demonstrates that the World Heritage Convention, with all its mechanisms, has not succeeded in safeguarding this site. At the same time, it serves as a useful warning to States Parties which make a substantial commitment when applying for the inscription of a site and neglect that responsibility after obtaining the desired inscription. So, it is both unfortunate and beneficial. Moreover, I suppose that unfortunately a number of additional de-listings can be expected in the years to come'.[463]

In 2009, it was decided by the Committee to delist the cultural landscape site of Dresden Elbe Valley in Germany as well, as a result of the building of a bridge over the Elbe.[464] Although the bodies of the World Heritage Convention have never introduced a formal compliance procedure, it seems more than likely that the instruments in the form of incentive measures, reactive monitoring and the List of World Heritage in Danger combined with the possible threat of delisting produce very similar results.

iii. Supervising Compliance and Enforcement by the Secretariat of the Convention

Although some activities in this area are carried out by the World Heritage Centre, this is clearly not seen as one of its main tasks. For instance, the Operational Guidelines indicate that the World Heritage Centre has to consolidate the national reports into regional state of the World Heritage reports,[465] but not that it should scrutinise their contents and publish the overall results. It is the task of the Committee to carefully review the issues raised in the periodic reports,[466] which would presume some preparation by the World Heritage Centre, but this is not mentioned anywhere. The World Heritage Centre's Natural Heritage Strategy is also silent on this issue.[467]

In relation to the reactive monitoring process, the IUCN indicates that this is 'not systematic' and that 'there is no "monitoring and evaluation unit"' and a great dependence is placed on the institutional memories of those responsible for compiling reports'.[468] Paradoxically, the World Heritage Committee mentions in its publication 'Reflections on the preparation of the next cycle of Periodic Reporting',[469] that there is 'an absence of institutional memory at all levels'.[470]

The World Heritage Centre regularly issues an up-to-date overview of sites included in the list of World Heritage in Danger with the date of inclusion.[471] The application of the World Heritage Convention in the national courts does not appear to be systematically monitored by the World Heritage Centre, although press releases were sent out in some cases.

iv. International Dispute Settlement Procedures

There is no section or article in the convention that deals with dispute settlement, neither do the operational guidelines mention this issue.

v. Conclusion

There are no indications that compliance with and enforcement of the convention by at least three-quarters of the States Parties has been reached. However, the available

information on the States Parties' compliance with and enforcement of the World Heritage Convention is rather scarce. This is mainly due to the fact that the regional reporting approach that has been chosen hardly discloses any information on the level of compliance by individual States Parties. Details on the state of the World Heritage sites themselves are also limited. This type of reporting shields States Parties from public accountability. Two positive exceptions can be found in the individual periodic reports of the United States and Canada. The frequency of periodic reporting has been disappointing too; it took over 35 years before the first cycle of reporting was concluded. The six-year interval of the reporting cycle seems already long and, in view of the fact that the second cycle of reporting has been delayed, the usefulness of this reporting exercise becomes doubtful.

The reactive monitoring procedure in combination with the List of World Heritage in Danger and the possible delisting of the site appear to be important instruments to protect the outstanding universal values of the World Heritage sites against concrete threats. In many cases they are sufficient to restrain States Parties from carrying out developments that would impair the integrity of a site. Although the IUCN report *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* gives an insight into the workings of this process,[472] the monitoring reports prepared by the IUCN in case of natural or mixed sites are not publicly available, a shortcoming that needs to be addressed. Other worrying issues in relation to the List of World Heritage in Danger are the facts that the Committee often appears to bow to political pressure from the States Parties in cases concerning the inscription or removal of sites and the lack of action after a site has been inscribed on this list. The filing of petitions by NGOs and individuals is a new and creative tool that could help stirring the Committee and States Parties into action on certain major subjects such as climate change.

The direct application of the convention in the national courts has been limited and appears to offer little protection to World Heritage sites. Only very few States Parties have introduced special legislation protecting World Heritage sites, but especially the Australian cases illustrate that this can be very effective. All these decisions should be available on the website of the convention.

Supervision by the World Heritage Centre is clearly insufficient, and transparency is lacking. More information should be made available on the website of the convention, including the individual national reports that States Parties must submit to the World Heritage Centre (which should be accompanied by a synthesised report on the outcome of these reports), and the reactive monitoring reports prepared by the Advisory Bodies.

Taking all these aspects into account, the contribution of this element to the effectiveness of the convention is still considered to be **unsatisfactory**.

3. The Effectiveness of the World Heritage Convention: Conclusion

The assessment of the World Heritage Convention results in a 'satisfactory' rating for five elements of the Effectiveness Test, whereas the other five elements score an 'unsatisfactory'.

The five elements recording a 'satisfactory' are 'Parties', 'Institutional Framework', 'Environmental NGOs and Other Stakeholder Groups', 'Reservations, Derogations and Other Exceptions' and 'Incentives'.

The number of States Parties of the convention is impressive and all states that can be expected to make a significant contribution to the conservation of natural World Heritage sites are participating.

The institutional framework of the convention appears to be well-developed and although the financial budget is tight, for the moment it seems sufficient to cover the operational costs of the convention.

Cooperation with the different stakeholders is extensive and well-organised through PACT. The early involvement of the IUCN as the advisory body for the natural World Heritage sites has been a major advantage. This also goes for the well-established relations with international organisations, such as the GEF, and the private sector regarding funding.

The convention also scores a 'satisfactory' rating on the 'Reservations, Derogations and Other Exceptions' element, since none of the reservations has a significant negative effect on the realisation of its (rather imprecisely formulated) objectives, its text does not include clauses on derogations and there are no other exceptions available to the States Parties.

The fifth 'satisfactory' score is obtained on the 'Incentives' element. The convention offers a meaningful financial incentive, which is in no small measure thanks to the funding received from the UN Foundation for the benefit of natural sites. The other incentives are valuable as well, especially the marketing incentive. World Heritage status is clearly seen by many States Parties as an honour to aspire to.

The convention's ratings on the other five elements of the Effectiveness Test are less convincing. The elements, 'Objectives, Measures and Timing', 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness' and 'Compliance and Enforcement' are all considered 'unsatisfactory'.

Regarding the 'Objectives, Measures and Timing' element, it appears that the convention lacks clear and precise objectives. There is also no strategy as to how and when the World Heritage List for natural and mixed sites will be completed, while a timetable concerning the implementation of most other measures of the convention is missing as well.

The convention also receives an 'unsatisfactory' on the 'Implementation' element. This is mainly due to the fact that many natural and mixed sites have yet to be nominated by the States Parties, which seem reluctant to act on the IUCN's indications as to which additional sites still need to be added. Besides, the implementation of the convention is not actively and verifiably supervised by the World Heritage Centre.

The 'Monitoring' of the World Heritage sites is still insufficient, producing yet another 'unsatisfactory' score. However, new initiatives, such as the Enhancing our Heritage project and satellite monitoring could signal an improvement.

The convention does not escape an 'unsatisfactory' rating on the 'Communication, Education and Public Awareness' element either. The CEPA strategic plan of the convention dates from 1998 and needs updating. Little is known about the implementation of national CEPA plans by the States Parties. The website of the convention should be more comprehensive and provide access to important documents such as the national reports and the reactive monitoring reports.

The World Heritage Convention is also judged 'unsatisfactory' on the 'Compliance and Enforcement' element. Of the various supervisory measures that it has at its disposal at the international level, the reporting requirement seems the weakest link. In the convention's nearly 40 years of existence, the States Parties finalised just one reporting cycle. The reports of the individual States Parties are, with the exception of those of the USA and Canada, not made available on the website of the convention. The regional reports are not

very specific and mostly out of date. However, the reactive monitoring procedure in combination with the List of World Heritage in Danger and the threat of delisting certainly help bolster the protection of World Heritage sites. Decisions by the Committee should be based on scientific information without political interference. The supervisory role of the World Heritage Centre needs strengthening.

The scores on five of the ten elements are still 'unsatisfactory' and, as a consequence, the Effectiveness Test confirms that this convention is **not yet effective**.

[1] Examples are the campaigns to save the Abu Simbel in Egypt, Venice in Italy, Moenjodaro in Pakistan and the Borobodur in Indonesia.
[2] See http://whc.unesco.org (accessed 31 December 2009).
[3] World Heritage Convention, Article 2.
[4] Morphology is the science concerned with the forms and structures of living organisms; physiography is the science of the earth's physical features and phenomena or physical geography.
[5] See World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 77 (vii-x).
[6] Ibid., paragraph 37.
[7] World Heritage Convention, Article 5.
[8] World Heritage Convention, Article 6.
[9] World Heritage Convention, Article 11, paragraph 4.
[10] Ibid.
[11] Adopted at the 18th session of the World Heritage Committee, Phuket, 1994 available on http://whc.unesco.org/en/globalstrategy.
[12] WHC Document 26.COM/9 (2002); one strategic objective was added in 2007 (WHC Document 31.COM/13B (2007); see also sub-section 2.4.
[13] World Heritage Convention, Article 2.
[14] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 49.
[15] Ibid., paragraph 88; see also paragraphs 90-95.
[16] See http://whc.unesco.org/en/pactfaq.
[17] Ibid.
[18] See http://whc.unesco.org (accessed 31 December 2009).
[19] World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 193.
[20] World Heritage Convention, Article 8, paragraph 1 (General Assembly and World Heritage Committee) and Article 14, paragraph 1 (Secretariat).
[21] World Heritage Convention, Article 13, paragraph 7.
[22] World Heritage Convention, Article 37, paragraph 1.
[23] World Heritage Convention, Article 8, paragraph 1 and Article 16.
[24] Interview with Mrs. Sabine Gimbrère, 2003-2007 Member of the Dutch Delegation of the World Heritage Committee in Paris (Amsterdam, 29 April 2008).
[25] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 21.
[26] This relates to the following regions: Africa, Arab States, Europe & North America, Latin America, and Asia and the Pacific.
[27] World Heritage Convention, Article 16, paragraph 5.
[28] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 19 and 24.
[29] World Heritage Convention, Article 13, paragraph 8.
[30] World Heritage Convention, Article 10, paragraph 1.
[31] World Heritage Convention, Article 11, paragraph 2.
[32] World Heritage Convention, Article 11, paragraph 7.
[33] World Heritage Convention, Article 11, paragraph 4.
[34] World Heritage Convention, Article 13, paragraph 6.
[35] World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 33.
[36] Article 29, paragraph 3.
[37] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 25.
[38] See WHC Document 33.COM/16B (2009) Table No. 5: Staffing Table 2010-2011 and WHC Document 31.COM/19A (2007) Management Audit Deloitte, page 7.
[39] World Heritage Convention, Article 14, paragraph 1.
[40] Currently Mr. Francesco Bandarin; see http://whc.unesco.org (accessed 19 May 2010).
[41] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 28 and World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 33.
[42] See WHC Document 31.COM/19A and B (2007).

[43] WHC Document 31.COM/19A (2007) Management Audit Deloitte, page 7 ; and interview with Mrs. Sabine Gimbrère, 2003-2007 Member of the Dutch Delegation of the World Heritage Committee in Paris (Amsterdam, 29 April 2008).
[44] Interview with Mrs. Sabine Gimbrère, 2003-2007 Member of the Dutch Delegation of the World Heritage Committee in Paris (Amsterdam, 29 April 2008).
[45] See World Heritage Convention, Article 13, paragraph 7 and Article 14, paragraph 2.
[46] See World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 31 and World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 34.
[47] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 37.
[48] Cameron C., *Evaluation of IUCN's Work in World Heritage Nominations* (2005).
[49] Ibid., 2 and 14.
[50] See World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 13.
[51] See WHC Document 33.COM/16B (2009), Table 5; this budget for staff payments is less than the staff payments for the period 2008-2009, which were over USD 13 million.
[52] Ibid., Table 3.
[53] Ibid., Table 3 and Attachment 1.
[54] Ibid., paragraph 9.
[55] The budget proposal documentation is not remarkable for clarity anyway.
[56] WHC Document 33.COM/20 (2009), Decision 33 COM 16B (2009).
[57] World Heritage Convention, Article 16, paragraph 5.
[58] See WHC Document 33.COM/16A (2009), paragraph 11 and WHC Document 33.COM/20 (2009), Decision 33 COM 16B (2009).
[59] World Heritage Convention, Article 8, paragraph 3, Article 13, paragraph 7 and Article 14, paragraph 2.
[60] World Heritage Convention, Article 8, paragraph 3, Article 10, paragraph 2, Article 13, paragraph 7 and Article 15, paragraph 3(b)(ii) and (iii).
[61] Adopted by the World Heritage Committee at its first session (Paris, France, 1977) and amended at its second (Washington, D.C., USA, 1978), twentieth (Merida, Mexico, 1996), twenty-fourth (Cairns, Australia, 2000) and twenty-fifth (Helsinki, Finland, 2001) ordinary and sixth extraordinary (Paris, France, 2003) sessions.
[62] Rules of Procedure, Rule 7.
[63] Rules of Procedure, Rule 8.3.
[64] See WHC Document 26.COM/13C (2002).
[65] See WHC Document 31.COM/15 (2007), paragraph 4.
[66] See for details the Regulatory Framework for the World Heritage PACT available on http://whc.unesco.org.
[67] WHC Document 31.COM/15 (2007), Chapter II, paragraph 4.
[68] World Heritage Convention, Article 8, paragraph 3.
[69] World Heritage Convention, Article 13, paragraph 7.
[70] World Heritage Convention, Article 14, paragraph 2.
[71] Sub-section 2.2.
[72] World Heritage Convention, Article 13, paragraph 7.
[73] World Heritage Convention, Article 8, paragraph 3 and Article 10, paragraph 2.
[74] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 38, 39 and 40.
[75] Rules of Procedure, Rule 8.3 and 8.4.
[76] See Gillespie A., 'Facilitating and Controlling Civil Society in International Environmental Law' (2006) 15:3 *RECIEL* 333.
[77] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 1.
[78] These agreements are not available on the website.
[79] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 9.
[80] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 215.
[81] See for more information www.unep-wcmc.org/protected_areas/world_heritage/index.htm.

[82] See for more information sub-section 2.7.
[83] See WHC Document 31.COM/15 (2007), Annex I and WHC Document 26.COM/13C (2002) Annex I.
[84] See for instance World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 41-44 and World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 78.
[85] See WHC Document 30.COM/INF.6A (2006), paragraph 8.
[86] See Chapter III, sub-section 5.3 (iii).
[87] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 83.
[88] See WHC Document 33.COM/5C (2009), paragraph 9.
[89] Ibid., paragraphs 11 and 12.
[90] See www.cbd.int/blg (accessed 21 May 2010).
[91] WHC Document 33.COM/5C (2009), paragraph 13.
[92] See Chapter II, sub-section 3.2 for more information on MAB.
[93] See WHC Document 33.COM/5C (2009), paragraph 18 and WHC Document 30.COM/INF.6A (2006), paragraph 29.
[94] Ibid., paragraphs 14 and 15.
[95] See sub-section 2.10 for more information.
[96] WHC Document 31.COM/7.1 (2007), Decision 31 COM 7.1 (2007).
[97] WHC Document 26.COM/13C (2002), Annex I.
[98] See sub-section 2.9 for more details.
[99] World Heritage Centre, Secretariat CBD, the GEF and UNDP; the Memorandum of Cooperation is available on www.cbd.int.
[100] Examples are All Nippon Airways (Japan), Evergreen Digital Contents (Japan), Hewlett-Packard (USA), Jaeger-LeCoultre (Switzerland), Jet Tours (France), Kobi Graphis (Japan), Mercedes Benz (Germany), Nippon Hoso Kyokai (Japan), Press Group Holdings Europe (Spain), Shell Foundation (UK), Sudwestrundfunk (Germany), Tokyo Broadcasting System (Japan).
[101] See WHC Document 31.COM/15 (2007), Annex I.
[102] See WHC Document 31.COM/15 (2007), Annex I, page 26 and World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 183.
[103] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Strategy* (2006) 11.
[104] Ibid., 11.
[105] See Regulatory Framework for the World Heritage PACT available on http://whc.unesco.org.
[106] The use of the word 'decay' may indicate the initial focus of the convention on cultural heritage.
[107] See World Heritage Centre, *World Heritage Information Kit* (2008) 1; available on the website http://whc.unesco.org.
[108] WHC Document 30.COM/INF.6A (2006), paragraph 9.
[109] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 119.
[110] World Heritage Convention, Article 3.
[111] World Heritage Convention, Article 4.
[112] World Heritage Convention, Article 5.
[113] World Heritage Convention, Articles 6 and 7.
[114] World Heritage Convention, Article 6, paragraph 3.
[115] World Heritage Convention, Article 11, paragraph 1.
[116] World Heritage Convention, Article 11, paragraphs 2 and 4.
[117] World Heritage Convention, Article 11, paragraphs 5 and 6.
[118] World Heritage Convention, Article 13 and Articles 19-26.
[119] World Heritage Convention, Article 16.
[120] World Heritage Convention, Article 15.
[121] World Heritage Convention, Article 27, paragraph 1.
[122] World Heritage Convention, Article 29.
[123] The latest version used in this study is WHC.08/01, January 2008.
[124] World Heritage Convention, Articles 3 and 4 and Article 11, paragraph 1.
[125] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 62.
[126] Ibid., paragraph 64.

[127] Ibid., paragraph 65.
[128] World Heritage Convention, Articles 3 and 4.
[129] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) Chapter III.
[130] Ibid., paragraph 130.
[131] Ibid., paragraph 132.
[132] Ibid., paragraph 63.
[133] Ibid., paragraph 148.
[134] World Heritage Convention, Article 11, paragraphs 5 and 6; and World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) Chapter III.J.
[135] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) Chapter III.J.
[136] World Heritage Convention, Article 11, paragraph 4.
[137] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 183-189, and paragraphs 178-182; see also sub-sections 2.9 and 2.10.
[138] Ibid., paragraphs 190-191.
[139] Ibid., paragraphs 192-198; see also sub-section 2.10.
[140] World Heritage Convention, Articles 4 and 5.
[141] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 98.
[142] Ibid., paragraphs 99-107.
[143] Ibid., paragraphs 108-118.
[144] Ibid., paragraph 213.
[145] Ibid., paragraphs 214 and 215; see also sub-section 2.7.
[146] World Heritage Convention, Article 7.
[147] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 201 (d).
[148] World Heritage Convention, Chapters IV and V.
[149] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 216, 220-222 and Chapter IV.
[150] See sub-section 2.9.
[151] See sub-section 2.10.
[152] Sub-section 2.8.
[153] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) Chapter IV.
[154] See http://whc.unesco.org/en/globalstrategy.
[155] See WHC Document 98/CONF.203/12 (1998) Chapter 5: Global Strategy Plan for Europe and North America.
[156] See IUCN, *The World Heritage List: Guidance and future priorities for identifying natural heritage of potential outstanding value* (2008) 18; see also http://whc.unesco.org/en/globalstrategy.
[157] See for more information on this issue Douvere F. and Laffoley D., 'Marine World Heritage: the time is now. Protecting the 'best of the best' in the ocean' (2010) 56 *World Heritage* 18.
[158] WHC Document 26.COM/5 (2002) adopted at the 26th Session of the World Heritage Committee, Budapest, Hungary (WC-02/CONF.202/25, 9).
[159] See WHC Document 31.COM/13B (2007) adopted at the 31st Session of the World Heritage Committee, Christchurch, New Zealand (WC-07/31.COM/24).
[160] See World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 61.
[161] WHC Document 30.COM/INF.6A (2006).
[162] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006).
[163] See for instance Magin C. and Chape S., *The Review of the World Heritage Network: Biogeography, Habitats and Biodiversity* (2004) UNEP-WCMC and IUCN.
[164] IUCN, *The World Heritage List: Future priorities for a credible and complete list of natural and mixed sites* (2004); WHC Document 28.COM/INF.13B (2004).
[165] This number is currently about 200.
[166] Ibid., 12.

[167] Ibid., 13; see also on this issue Redgwell C., 'Article 2: Definition of Natural Heritage' in Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008) 83.
[168] Ibid., 14.
[169] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 71; see also WHC-04/28.COM/13.
[170] Information on these and other programmes is available on http://whc.unesco.org/en/activities.
[171] See WHC Document 30.COM/12 (2006).
[172] Ibid.
[173] Ibid.
[174] Ibid.
[175] Ibid.
[176] Ibid.
[177] See http://whc.unesco.org/en/activities.
[178] See sub-section 2.10 for more details.
[179] See WHC Document 30.COM/7.1 (2006) paragraphs 10-23.
[180] See http://whc.unesco.org/en/activities.
[181] See for more information Langley J., 'Overcoming the challenges of expanding and conserving marine World Heritage' 47 *World Heritage* 68.
[182] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 168.
[183] See WHC Document 30.COM/12 (2006).
[184] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 62.
[185] Ibid., paragraph 63.
[186] Ibid., paragraph 66.
[187] Ibid., Annex 2.
[188] Ibid., paragraph 71.
[189] Ibid., paragraph 72.
[190] Ibid., paragraph 73.
[191] Ibid., paragraphs 74-76.
[192] 85% in November 2007 and almost 90% as per 15 April 2009 (WHC Document 33.COM/8A (2009), paragraph 4).
[193] Own observation, based on information on the convention's website (accessed 30 November 2007).
[194] 184 at the time.
[195] Own observation, based on information on the convention's website (accessed 30 November 2007).
[196] IUCN, *The World Heritage List: Future priorities for a credible and complete list of natural and mixed sites* (2004) 4.
[197] See World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 120 and 121.
[198] Ibid., paragraph 123.
[199] Ibid., paragraphs 124-127.
[200] Ibid., paragraphs 132 (1) and (2).
[201] Ibid., paragraph 132 (3).
[202] Ibid., paragraph 132 (4) and (6).
[203] See for instance WHC Document 31.COM/7.3 (2007).
[204] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 132 (5) and Annex 5, paragraph 5 (a)-(d).
[205] Ibid., paragraph 98.
[206] Interview with Mrs. Sabine Gimbrère, 2003-2007 Member of the Dutch Delegation of the World Heritage Committee in Paris (Amsterdam, 29 April 2008).
[207] See ICOMOS, *Tourism at world heritage cultural sites: the site manager's handbook* (1993) 9.
[208] See also sub-section 2.10.
[209] See www.environment.gov.au/heritage.
[210] World Heritage Convention Act No. 49 of 1999, which provides for the implementation of the UNESCO World Heritage Convention in South Africa.
[211] See World Heritage Centre, *Periodic Report and Action Plan Europe 2005-2006* (2007) 48.

[212] Ibid., 54; South-Eastern and Eastern Europe are working towards improvement.
[213] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) Annex 5, paragraph 5 (e)-(j).
[214] IUCN, *Management Planning for Natural World Heritage Properties: A Resource Manual for Practitioners* (2008).
[215] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 140; mixed properties will be evaluated jointly with ICOMOS, cultural landscapes will be evaluated by ICOMOS in consultation with the IUCN.
[216] Ibid., Annex 6B, paragraph 8.
[217] Ibid., Annex 6.
[218] Ibid., paragraph 151.
[219] Ibid., paragraph 152.
[220] Interview with Mrs. Sabine Gimbrère, 2003-2007 Member of the Dutch Delegation of the World Heritage Committee in Paris (Amsterdam, 29 April 2008).
[221] See Cameron C., 'Evolution of the application of "outstanding universal value" for cultural and natural heritage' (2005); this paper is printed in WHC Document 29.COM/INF.9B (2005).
[222] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 153-160.
[223] Ibid., paragraph 158.
[224] Ibid., paragraphs 159-160.
[225] Ibid., paragraph 155.
[226] Ibid., paragraph 156.
[227] See IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003) 2.
[228] Ibid.
[229] Ibid.
[230] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 38.
[231] See WHC Document 33.COM/14A (2009), paragraph 11 (e).
[232] IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003).
[233] Ibid., 14.
[234] See WHC Document 30.COM/11G (2006), paragraph 19; and World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 194.
[235] WHC Document 30.COM/11G (2006), paragraph 34.
[236] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 194.
[237] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006).
[238] Ibid., 6.
[239] See WHC Document 31.COM/13A (2007).
[240] See WHC Document 17.GA/9 (2009), Part III, section II.
[241] See WHC Document 28.COM/13 (2004), paragraph 21 (c).
[242] WHC Document 17.GA/9, Part III (2009), section II.
[243] See WHC Document 29.COM/12 (2005), paragraph 18.
[244] World Heritage Convention, Article 16, paragraph 4.
[245] Brazil, Bulgaria, Cape Verde, Denmark, France, Germany, Holy See, Moldova, Norway, Oman, United States of America, South Africa.
[246] See http://portal.unesco.org.
[247] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 132 (4).
[248] Ibid., Annex 5, paragraph 4 (a).
[249] Ibid., Annex 5, paragraph 6 (a).
[250] Ibid., Annex 5, paragraph 6 (a).
[251] Ibid., Annex 5, paragraph 6 (c).
[252] Ibid., Annex 5, paragraph 4 (b).
[253] Ibid., Chapter V.
[254] Ibid., paragraph 201 (c).
[255] Ibid., Annex 7, II (6).
[256] World Heritage Centre, *Periodic Report and Action Plan Europe 2005-2006* (2007) 74.
[257] World Heritage Centre, *Periodic Report 2004 Latin America and the Caribbean* (2006) 26.

[258] Of the 851 World Heritage sites, 496 sites in the territories of 146 States Parties were assessed during the first cycle of reporting; see WHC Document 30.COM/11G (2006), paragraph 12.
[259] Ibid., paragraph 29.
[260] See Boccardi G., 'Improving Monitoring for World Heritage Conservation' in ICCROM and World Heritage Centre, *Monitoring World Heritage* (2002) 40.
[261] WHC Document 31.COM/7.3 (2007) paragraph 11.
[262] WHC Document 30.COM/11G (2006) paragraph 41.
[263] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 15; see also Ramsar Culture Working Group, *World Heritage Convention: Challenges and perspectives* (2009) 3.
[264] See Hockings M., 'Summary of final discussion – Vicenza Monitoring Workshop' in ICCROM and World Heritage Centre, *Monitoring World Heritage* (2002) 121.
[265] Available on http://whc.unesco.org/en/series.
[266] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 169-176.
[267] Ibid., paragraph 169.
[268] Ibid.; see also Gillespie A., 'Environmental Impact Assessments in International Law' (2008) 17:2 *RECIEL* 223.
[269] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 177; see for more information on the List of World Heritage in Danger sub-sections 2.9 and 2.10.
[270] Ibid., paragraph 190.
[271] IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003) 15.
[272] Ibid.
[273] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 20.
[274] Ibid., 20-21.
[275] Hockings M. et al., *Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas* (2000) Best Practice Protected Area Guidelines Series No. 6.
[276] Ibid., Chapters 3-4.
[277] See Stolton S. and Dudley N., 'Assessing Management Effectiveness of Natural World Heritage Sites' in ICCROM and World Heritage Centre, *Monitoring World Heritage* (2002) 59.
[278] See press release UNESCO, 'Satellites to the Rescue of World Heritage' (19 June 2003), available on http://portal.unesco.org.
[279] See press release —— 'International Astronautical Federation joins project to protect World Heritage sites' *Innovations Report* (22 March 2007) available on www.innovations-report.de/specials/printa.php?id=81311.
[280] See press release ESA, 'Satellieten brengen woongebied bedreigde berggorilla's in kaart' (29 June 2004) available on www.esa.int/esaCP/SEM6MA25WVD_Belgium_du_2.html.
[281] World Heritage Convention, Article 27.
[282] See WHC Document 98/CONF.203.15 (1998), Chapter I. A.3.
[283] WHC Document 98/CONF.203.15 (1998).
[284] Ibid., Chapter I. A.1.
[285] Ibid., Chapter I. B.
[286] See Van der Aa B., *Preserving the heritage of humanity? Obtaining world heritage status and the impacts of listing* (Dissertation, University of Groningen, 2006) 85.
[287] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 12, 123 and 211 and paragraphs 217-219.
[288] WHC Document 26.COM/5 (2002); Decision 26 COM9 (2002), paragraph 3 (f).
[289] World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 184.
[290] See Letter of the Dutch Ministry for Agriculture, Nature and Food Quality to Parliament, 'Nominatie van de Waddenzee als Werelderfgoed' of 13 December 2007, page 3.
[291] See http://whc.unesco.org/en/series.
[292] World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007).
[293] Examples are: IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003); and IUCN, *The World Heritage List: Future Priorities for a Credible and Complete List of Natural and Mixed Sites* (2004).
[294] WHC Document 30.COM/6 (2006), paragraph 86.

[295] http://whc.unesco.org/en/activities/567 and http://whc.unesco.org/en/activities/568 respectively (accessed 28 May 2010).
[296] WHC Document 30.COM/6 (2006), paragraph 83.
[297] See http://whc.unesco.org/en/educationkit (accessed 29 May 2010).
[298] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 53-55; see also Vujicic-Lugassy V. and Richon M., 'Articles 27-28: Educational Programmes' in Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008) 327.
[299] World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 56.
[300] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 275-279.
[301] Ibid., paragraph 275.
[302] Ibid., paragraph 217.
[303] Ibid., paragraph 220.
[304] World Heritage Centre, *Periodic Report and Action Plan Europe 2005-2006* (2007) 52.
[305] World Heritage Centre, *Periodic Report 2004 Latin America and the Caribbean* (2006) 21.
[306] WHC Document 26.COM/5 (2002) adopted by the 26th Session of the World Heritage Committee, Budapest, Hungary (WC-02/CONF.202/25,9).
[307] See WHC Document 31.COM/13A (2007), paragraph 35.
[308] www.worldheritagealliance.org.
[309] See www.friendsofworldheritage.org/about-us.html (accessed 29 May 2010).
[310] www.friendsofworldheritage.org.
[311] Personal experience.
[312] World Heritage Convention, Article 15, paragraph 1.
[313] World Heritage Convention, Article 15, paragraph 3 (a).
[314] World Heritage Convention, Article 15, paragraph 3 (b).
[315] World Heritage Convention, Article 15, paragraph 3 (c).
[316] World Heritage Convention, Article 15, paragraph 3 (d).
[317] World Heritage Convention, Article 15, paragraph 3 (e).
[318] World Heritage Convention, Article 15, paragraph 4.
[319] World Heritage Convention, Article 18.
[320] Financial Regulations, paragraph 1.1.
[321] Financial Regulations, paragraph 4.1.
[322] See WHC Document 33.COM/16B (2009), Table 3.
[323] See also sub-section 2.2 (vii).
[324] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 22.
[325] See for instance Van der Aa B., *Preserving the heritage of humanity? Obtaining world heritage status and the impacts of listing* (Dissertation, University of Groningen, 2006) 98.
[326] See also on this subject Lenzerini F., 'Articles 15-16: World Heritage Fund' in Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008) 280.
[327] See WHC Document 33.COM/16B (2009), Table 3.
[328] See for instance WHC Document 33.COM/16A (2009) and WHC Document 31.COM/20B (2007).
[329] See www.unfoundation.org.
[330] See World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 2.
[331] World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 51.
[332] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 10.
[333] Funds in Trust have for instance been established by Belgium, France, Japan, The Netherlands, Norway and Spain.
[334] See also Lenzerini F., 'Article 15-16: World Heritage Fund' in Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008) 282.
[335] World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 2.
[336] WHC Document 32.COM/INF.5D (2008), paragraph 1.
[337] See sub-section 2.3 for more information on PACT.
[338] See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 50 (Figure 6).
[339] See Document WHC 30.COM/6 (2006), page 2.
[340] World Heritage Centre, *Periodic Report Africa* (2003) 69.
[341] World Heritage Convention, Article 7.

342 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 237; an exception is made for emergency assistance.
343 Ibid., paragraphs 233-241.
344 Ibid., paragraph 235.
345 World Heritage Convention, Article 21, paragraph 2.
346 See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 48.
347 Ibid., 21; and World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 13.
348 See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 47.
349 World Heritage Convention, Article 5 (e), Article 22 (a) and (c), Article 23, Article 24.
350 WHC Document 01/CONF.208/24 (2001).
351 World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 23.
352 WHC Document 7.EXT.COM11 (2004); Decision WHC-04/7 EXT.COM11 (2004).
353 Ibid., paragraph 22 (a).
354 Ibid., Table 1.
355 See WHC Document 33.COM/10B (2009), paragraph 11.
356 IUCN World Commission on Protected Areas, *Best Practice Protected Areas Guidelines Series* available on www.iucn.org; see also World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 58.
357 See for instance Document WHC 31.COM/14 (2007), paragraph 3.
358 World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 49.
359 See World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 240.
360 IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003) 8.
361 World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 47.
362 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 236-240.
363 Ibid., paragraph 236.
364 World Heritage Convention, Article 11, paragraph 4.
365 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 177-191.
366 Ibid., paragraph 180 for natural sites.
367 Ibid., paragraph 183.
368 Ibid., paragraph 186.
369 Iguazu/Iguaçu National Park (Argentina and Brazil), Yellowstone (United States), Rwenzori Mountains National Park (Uganda) and Sangay National Park (Ecuador).
370 Examples are the Manas Wildlife Sanctuary in India and the Air and Ténéré Natural Reserves in Niger, both in the list since 1992.
371 See http://whc.unesco.org/en/danger (accessed 30 May 2010).
372 See for instance Gray Davidson M., 'Protecting Coral Reefs: The Principal National and International Legal Instruments' (2002) 26 *Harvard Environmental Law Review* 538.
373 See sub-section 2.10 in relation to the second category.
374 See WHC Document 29.COM/14B (2005); the report's author has not been identified.
375 Ibid., Section II.
376 See WHC Document 30.COM/14A (2006).
377 World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 2.
378 World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 46.
379 See also sub-section 2.10.
380 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 135.
381 IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003) 11.
382 World Heritage Centre, *Periodic Report and Action Plan Europe 2005-2006* (2007) 48.
383 See for more information on this subject Van der Aa B., *Preserving the heritage of humanity? Obtaining world heritage status and the impacts of listing* (Dissertation, University of Groningen, 2006) 107-126.
384 See for instance Tourtellot J., 'World Heritage's biggest threat and benefactor: tourism' (2007) 47 *World Heritage* 56.
385 World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 187.

386 See Tourtellot J., 'World Heritage's biggest threat and benefactor: tourism' (2007) 47 *World Heritage* 58.
387 See World Heritage Centre, *World Heritage: Challenges for the Millennium* (2007) 190; and World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (2006) 13.
388 Campaigns such as the World Heritage Alliance and Friends of World Heritage were funded by the UN Foundation and the private sector; see also sub-section 2.8.
389 See for instance IUCN, *World Heritage in Danger* (2009) 29.
390 *Coal Contractors Limited v Secretary of State for the Environment and Northumberland County Council* High Court, Queen's Bench Division, 9 December 1993, 68 P & C R 285; see also Rutherford L., 'Protecting World Heritage Sites: *Coal Contractors Limited v Secretary of State for the Environment and Northumberland County Council*' (1994) 6 *Journal of Environmental Law* 369.
391 Secretary of State's decision letter dated 18 February 1994, APP/R2900/A/91/190575, paragraph 8.
392 See Khalastchi R., 'International Environmental Law in the Courts of the United Kingdom' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 224; Rutherford L., 'Protecting World Heritage Sites: *Coal Contractors Limited v Secretary of State for the Environment and Northumberland County Council*' (1994) 6 *Journal of Environmental Law* 369; Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (1997) 106.
393 BVerfG, 2 BvR 695/07 vom 29.5.2007, Absatz-Nr.(1-42); decision available on www.bundesverfassungsgericht.de.
394 The court refers to World Heritage Convention, Article 6, paragraph 1.
395 The court refers to World Heritage Convention, Article 7.
396 See BVerfG, 2 BvR 695/07 vom 29.5.2007, Absatz-Nr.(1-42), paragraph 35.
397 *Commonwealth of Australia and Another v. State of Tasmania and Others* (1983) 158 CLR 1.
398 See World Heritage Convention, Article 4.
399 See for instance World Heritage Convention, Article 5.
400 See *Commonwealth of Australia and Another v. State of Tasmania and Others* (1983) 158 CLR 1, Mason J. paragraph 31; see also IUCN, *International Environmental Governance: An International Regime for Protected Areas* (2004) 24.
401 See Rothwell D. and Boer B., 'International Environmental Law and Australian Courts' in Anderson M. and Galizza P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 44.
402 *Richardson v Rorestry Commission* (1987) 73 ALR 589.
403 See Rothwell D. and Boer B., 'International Environmental Law and Australian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 29.
404 *Queensland v Commonwealth* (1989) 167 CLR 232.
405 See for more information Rothwell D. and Boer B., 'International Environmental Law and Australian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 30.
406 *Friends of Hinchinbrook Society Inc v The Minister for the Environment & Ors* (1997) 142 ALR 632 per Sackville J.; on appeal (1997) 147 ALR 608 per Northrop, Burchett, and Hill JJ.
407 See for extensive discussion of the case Thorpe J., "They said you'd never make it." Hinchinbrook: a case study of development and environmental protection in Australia' (1999) Tertangala Green Book.
408 See also Rothwell D. and Boer B., 'International Environmental Law and Australian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 32.
409 *Booth v Bosworth* [2001] FCA 1453.
410 See for more information Mc Grath C., 'The Flying Fox Case' (2002/2003) 8 (37) *QEPR* 64; Wiffen G. (ICOMOS Australia), *World Heritage Sites and Buffer Zones: an Australian perspective* (2006) 10; and Kennedy M., Beynon N. and Pittock J., 'Development and Implementation of Conservation Law in Australia' (2001) 10:3 *RECIEL* 307.
411 *Minister for Environment and Heritage v Queensland Conservation Council* (2004) 139 FCR 24.
412 See Wiffen G. (ICOMOS Australia), *World Heritage Sites and Buffer Zones: an Australian perspective* (2006) 11.
413 Rothwell D. and Boer B., 'International Environmental Law and Australian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 27.
414 World Heritage Convention, Article 29.
415 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 203.
416 Ibid., paragraph 208; and WHC Document 30.COM/11G (2006), paragraph 5.

[417] Ibid., paragraph 206 and Annex 7.
[418] Ibid., paragraph 201.
[419] Ibid., paragraphs 208-210.
[420] See WHC Document 30.COM/11G (2006); and WHC Decision 31 COM 11D.1 (2007).
[421] See WHC Document 30.COM/11G (2006), paragraph 13.
[422] Decision 7EXTCOM 5; see also http://whc.unesco.org/en/periodicreporting.
[423] See WHC Document 32.COM/11E (2008).
[424] Ibid., paragraph 9.
[425] Ibid., paragraph 22.
[426] Ibid.
[427] WHC Document 30.COM/11G (2006), paragraph 17.
[428] Ibid.
[429] See sub-section 2.7.
[430] See WHC Document 30.COM/11G (2006), paragraph B.3 (b).
[431] Ibid., paragraph C.1 (27).
[432] World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 169.
[433] Ibid., paragraph 172.
[434] Ibid., paragraph 169.
[435] Ibid., paragraph 174.
[436] Ibid., paragraph 175.
[437] Ibid., paragraph 176.
[438] Ibid., paragraph 176 (e).
[439] WHC Document 30.COM/11G (2006), paragraph 12.
[440] IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003).
[441] Ibid., 15.
[442] Ibid., 15.
[443] Ibid., 19.
[444] For example sites in Congo, Niger, Cote D'Ivoire/Guinea, India, Central African Republic.
[445] For example the uranium mine in Kakadu National Park in Australia, although the project is now on halt.
[446] IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003) 19.
[447] The procedure has been laid down in World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 177-191.
[448] Ibid., paragraph 190.
[449] An example is Ecuador in relation to the Galapagos Islands; see for more information on this issue Van der Aa B., *Preserving the heritage of humanity? Obtaining world heritage status and the impacts of listing* (Dissertation, University of Groningen, 2006) 103.
[450] See Cameron C., *Context of the World Heritage Convention: Key Decisions and Emerging Concepts* (UNESCO, 2009) Chapter II.2.
[451] See Francioni F. and Lenzerini F., 'The Future of the World Heritage Convention: Problems and Prospects' in Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008) 406.
[452] See IUCN, *World Heritage in Danger* (2009) paragraph 4.3 (c).
[453] Ibid., paragraph 2.10.
[454] Ibid., paragraph 4.3 (c).
[455] Ibid., paragraph 2.25.
[456] See the following websites for some of the petitions www.climatelaw.org/cases/country/intl/unescoglacier/2005Jul13 and www.climatelaw.org/cases/country/intl/cases/case-documents/unesco/unozblmtns.
[457] See WHC Document 30.COM/7.1 (2006); see for an extensive article on the issue Burns W., 'Belt and Suspenders? The World Heritage Convention's Role in Confronting Climate Change' (2009) 18:2 *RECIEL* 148.
[458] See for more information Buzzini G. and Condorelli L., 'List of World Heritage in Danger and Deletion of a Property from the World Heritage List' in Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008) 199; see also Goodwin E., 'The Consequences of Deleting World Heritage Sites' (2010) 21 *King's Law Journal* 283.

459 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraphs 192-198.
460 Ibid., paragraph 196.
461 Ibid., paragraph 192.
462 Press release UN News Service of 28 June 2007, 'Oman sanctuary first site to be removed from UNESCO World Heritage List'.
463 Interview with Mrs. Françoise Rivière in *World Heritage* (2007) 47 *World Heritage* 63.
464 See this sub-section under (i).
465 World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (2008) paragraph 208.
466 Ibid., paragraph 209.
467 WHC Document 30.COM/INF.6A (2006).
468 IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003) 15.
469 WHC Document 30.COM/11G (2006).
470 Ibid., paragraph 13.
471 See http://whc.unesco.org/en/danger.
472 IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003).

CHAPTER VI: CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

1. Introduction

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), was signed in Washington in 1973 and entered into force on 1 July 1975. This convention aims 'to ensure that international trade in specimens of wild animals and plants does not threaten their survival'.[1] The IUCN played a crucial role in the realisation of CITES.[2] A resolution by the IUCN in 1963 led to the drafting of the text of the convention. Ten years and several draft texts later, the convention was concluded. It is operating under the auspices of UNEP and the Secretariat is located in Geneva, Switzerland. Currently, CITES has 175 Parties.[3]

The estimated annual value of the legal international trade in plant and animal specimens, including non-CITES species, based on declared import values in 2005 is EUR 249 billion.[4] The annual illegal wildlife trade is estimated to be between USD 5 billion and USD 20 billion.[5] This trade consists not only of live animals and plants, such as primates, birds, reptiles, fish and medicinal and ornamental plants, but also of a large variety of products deriving from these, such as food and medicines, ivory products, mammal furs, reptile skins, corals, and timber. At the start of the convention 1,100 species were placed in the appendices.[6] Today, the lists of protected CITES species amounts to about 34,000, of which roughly 5,000 are animal species and 29,000 plant species.[7]

The protected species are listed in one of three appendices that each provide for a different level of protection. The species that are threatened with extinction are listed in Appendix I of the convention.[8] The species that are not immediately threatened with extinction, but in which trade must be controlled to prevent this, are listed in Appendix II.[9] The species that are protected by at least one Party to the convention, which Party has requested the cooperation of the other Parties to secure protection, are listed in Appendix III.[10] The lists of species in the three appendices are not static and changes are made from time to time in accordance with certain criteria. There are about 1,000 species listed in Appendix I, 33,000 in Appendix II and 171 in Appendix III.[11] Well-known examples of species that are currently in Appendix I are the gorilla, the tiger, the giant panda and the jaguar. Examples of animals listed in Appendix II are the polar bear and the wolf.

In 2000, the Conference of the Parties (COP) of CITES adopted its first strategic plan under the title Strategic Vision through 2005 with the objective to improve the working of the convention.[12] In 2007 an updated version, the CITES Strategic Vision 2008-2013, was adopted with the additional purpose 'to ensure that CITES policy developments are mutually supportive of international environmental priorities and take into account new international initiatives, consistent with the terms of the Convention'.[13]

The combination within CITES of the trade in wildlife on the one hand and the protection of wild species on the other has not always been an easy one. Sand refers to CITES as a 'regime in the borderland of trade and environment'.[14] Amongst the Parties as well as the environmental NGOs roughly two schools of thought can be distinguished. The first advocates that trade in endangered animals and plants should be avoided to enable these species to recover, while the second promotes the sustainable use of these species.[15] The second group mainly consists of developing countries within whose borders most of the

endangered CITES species are occurring. They claim that wildlife conservation is best served by exploiting it sustainably. In some of the following sub-sections this divide will surface again.

In section 2 of this chapter, the convention will be discussed and assessed on the basis of the Effectiveness Test. The conclusion will follow in section 3.

Box I: Key Terms CITES

Species: any species, subspecies, or geographically separate population thereof.[16]

Specimen: (i) any animal or plant, whether alive or dead; (ii) in the case of an animal: for species included in Appendices I and II, any readily recognizable part or derivative thereof; and for species included in Appendix III, any readily recognizable part or derivative thereof specified in Appendix III in relation to the species; and (iii) in the case of a plant: for species included in Appendix I, any readily recognizable part or derivative thereof; and for species included in Appendices II and III, any readily recognizable part or derivative thereof specified in Appendices II and III in relation to the species.[17]

Trade: export, re-export, import and introduction from the sea.[18]

Re-export: export of any specimen that has previously been imported.[19]

Introduction from the sea: transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State.[20]

Range State: a State whose territory is within the natural range of distribution of a species.[21]

Artificial propagation: characteristic of plant specimens: a) grown under controlled conditions; and b) grown from seeds, cuttings, divisions, callus tissues or other plant tissues, spores or other propagules that either are exempt from the provisions of the Convention or have been derived from cultivated parental stock.[22]

Bred in Captivity: characteristic of animal specimens, as defined in Article I, paragraph (b), of the Convention, born or otherwise produced in a controlled environment, and applied only if:
i) the parents mated or gametes were otherwise transferred in a controlled environment, if reproduction is sexual, or the parents were in a controlled environment when development of the offspring began, if reproduction is asexual; and
ii) the breeding stock, to the satisfaction of the competent government authorities of the exporting country:
A) was established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild;
B) is maintained without the introduction of specimens from the wild, except for the occasional addition of animals, eggs or gametes, in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild as advised by the Scientific Authority:
1. to prevent or alleviate deleterious inbreeding, with the magnitude of such addition determined by the need for new genetic material; or
2. to dispose of confiscated animals in accordance with Resolution Conf. 10.7; or
3. exceptionally, for use as breeding stock; and
C) 1. has produced offspring of second generation (F2) or subsequent generation (F_3, F_4, etc.) in a controlled environment; or
2. is managed in a manner that has been demonstrated to be capable of reliably producing second-generation offspring in a controlled environment.[23]

Ranching: rearing in a controlled environment of specimens taken from the wild.[24]
Split listing: the inclusion of one or more subspecies or populations of a species in one Appendix while other subspecies of populations are included in another Appendix or are not included.[25]

Annotation: a note attached to a certain species in the Appendices to indicate which population, parts or derivatives are concerned by the listing or clarifying its scope or containing special conditions relating to the inclusion of the species.[26]

2. The Effectiveness of CITES

2.1 Element 1: Parties

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.*

In 1973, the convention was adopted and signed by representatives of 80 states in Washington, DC, United States. The number of Parties is currently 175.[27] All the developed countries, of which Germany, Japan and the USA are the three major wildlife importers, are Parties to CITES.[28] The USA is also an important wildlife exporting country.[29] The vast majority of developing countries and countries with economies in transition are also Parties to the convention. Many of them are important exporting states, such as China, India, Indonesia, Malaysia, Thailand and Brazil,[30] while some, such as China and Russia, are also importing considerable quantities of CITES-listed specimens.[31]

So far, only states have been eligible to become Parties to the convention. Although an attempt was made to also allow regional economic integration organisations such as the EU to become Parties, this has not yet materialised. An amendment to the convention concerning this issue was adopted in 1983, but has still not been ratified by a sufficient number of Parties.[32] It will enter into force when it has been formally accepted by 54 of the 80 states that were Parties to the convention at 30 April 1983, the date the amendment was agreed upon. By early 2010, it had been accepted by 47 of these states.[33] Interestingly, the USA and Japan are among the Parties that have not accepted the amendment yet. Allowing economic integration organisations to become CITES Parties could eventually limit the reach of CITES since such organisations usually aim to create an open internal market, in which trade between its Member States is no longer considered to be 'cross-border'.[34] Already in 1982, the EU introduced legislation that transposed the convention into EC law.[35] It could do so because external trade rules are exclusively within its competence.

It is possible for a Party to denounce the convention and Article XXIV lays down the process of denunciation. A denunciation comes into effect twelve months after notification to the depositary government. A Party that denounced the convention was the United Arab Emirates after a trade ban was imposed on it by the Standing Committee of CITES in 1987 because of its non-compliance with the convention.[36] The state became a Party again in

1990 after it had introduced new CITES related legislation and the ban was subsequently lifted.[37]

Conclusion

CITES has almost reached global membership. All the developed countries and the vast majority of developing countries and countries with economies in transition are Parties to the convention. Since over three-quarters of UN Member States are Parties, including those states whose membership is especially important because of their natural, political or financial resources, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.2 Element 2: Institutional Framework

Benchmark: *For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.*

The convention provides for the installation of the Conference of the Parties (COP),[38] a Secretariat,[39] as well as Management and Scientific Authorities in each state that is a Party.[40] At a later stage, other institutions were added, of which the most important are the Standing Committee, and the Animals and Plants Committees.

i. The Conference of the Parties

The Conference of the Parties (COP) is the decision-making body of the convention. At least every two years (unless the Conference decides otherwise) Parties come together[41] to discuss the implementation of the convention.[42] The COP's main tasks are:

— to make provisions to enable the Secretariat to carry out its duties, and to adopt financial provisions;[43]
— to consider and adopt amendments to Appendices I and II;[44]
— to review the progress made towards the restoration and conservation of the species included in Appendices I, II, and III;[45]
— to consider reports presented by the Secretariat or by any Party;[46]
— to make recommendations for improving the effectiveness of the convention;[47] and
— to adopt amendments to the convention.[48]

The recommendations that the COP can make based on Article XI, paragraph 3 (e) can be divided into resolutions and decisions. It is indicated by the Secretariat that resolutions are of a more permanent nature, whereas decisions are usually instructions to the Secretariat or the Committees. Decisions or resolutions that have been revised at a certain stage receive the abbreviation 'Rev.' attached, followed by the COP meeting at which the decision to revise was taken.[49]

In 1985, the Sponsored Delegates Project was introduced with the intention to reach optimum participation of the Parties at COP meetings by providing financial assistance to

those Parties that would not be able to attend without it. It is indicated that after the project was launched, Party participation has increased substantially.[50]

ii. The Standing Committee

In 1979, the COP introduced the Standing Committee and made it responsible for guiding the Secretariat concerning the implementation of the convention and supervising the budget.[51] In addition, the committee coordinates and oversees the work of other committees, such as the Animals Committee and the Plants Committee, performs ad hoc tasks as requested by the COP, and drafts resolutions for consideration by the COP. The Standing Committee can also decide on a so-called 'recommendation to suspend trade'. Usually, such a recommendation targets a Party that is not in compliance with the convention by recommending the other Parties to suspend their trade in CITES species with this Party.[52]

The Standing Committee consists of representatives of fourteen Parties, representing the six geographical regions, the depositary government (Switzerland) and the hosting Parties of the previous and the next COP meetings.[53] The other Parties can send observers to these meetings. The committee usually meets once a year and some (environmental) NGOs are now allowed to participate in these official meetings.[54] Since 2001, documents related to these meetings have been made available on the CITES website, increasing the transparency of the activities of the Standing Committee.[55] The regional representatives are elected by the COP.[56]

iii. The Secretariat

The convention provides for a Secretariat and lays down its functions.[57]

Besides the usual tasks of arranging meetings and providing the Parties with information, the Secretariat plays a coordinating role in the procedure to amend the appendices, it undertakes technical and scientific studies and scrutinises the reports of the Parties and, where necessary, requests additional information from Parties to ensure the implementation of the convention. An additional responsibility of the Secretariat has been laid down in Article XIII of the convention:

1. When the Secretariat in the light of information received is satisfied that any species included in Appendix I or II is being affected adversely by trade in specimens of that species or that the provisions of the present Convention are not being effectively implemented, it shall communicate such information to the authorised Management Authority of the Party or Parties concerned.

2. When any Party receives a communication as indicated in paragraph 1 of this Article, it shall, as soon as possible, inform the Secretariat of any relevant facts insofar as its laws permit and, where appropriate, propose remedial action. Where the Party considers that an inquiry is desirable, such inquiry may be carried out by one or more persons expressly authorised by the Party.

3. The information provided by the Party resulting from any inquiry as specified in paragraph 2 of this Article shall be reviewed by the next Conference of the Parties which may make whatever recommendations it deems appropriate.[58]

The Secretariat is also required to present an annual report to the Parties on its activities and on the status of the implementation of the convention.[59] The reports are published on the CITES website.[60]

Intergovernmental agencies and NGOs that are 'technically qualified in protection, conservation and management of wild fauna and flora' may assist the Secretariat.[61] An example of such assistance is the monitoring work done by TRAFFIC.[62]

The Activity Report 2008-2009 of the CITES Secretariat indicates that at the end of 2009 the number of regular staff was 23.[63] Additionally, four staff members are based in Kenya for the implementation of the Monitoring the Illegal Killing of Elephants (MIKE) programme and two staff members are seconded, one from Australia and one from the Netherlands.[64] Five additional staff posts planned for the triennium 2009-2011,[65] have not been filled. Moreover, it is indicated in the Activity Report that as a result of limited resources five people that left the Secretariat could not be replaced either.[66]

It has been observed by some commentators that, considering its limited number of staff and available budget (see later), the Secretariat has done an impressive amount of work. Reeve has for instance stated that 'the Secretariat has proved remarkably strong, despite its shoe string budget'.[67]

iv. The Technical Committees

The COP has installed two technical committees, the Animals Committee and the Plants Committee.[68] A third committee, the Nomenclature Committee, has been dissolved in 2007 and its tasks have been taken over by the Animals and Plants Committees. The experts in each of these committees provide the convention with biological and other specialised knowledge concerning animal and plant species.[69] Members of these committees are specialists from all six regions, who are elected by the COP. Each committee meets twice between COP meetings. The Chairman of each committee may invite persons or organisations to these meetings to participate as observer and Parties without a member may be represented by an observer as well. The main tasks of the Animals and Plants Committees are:

— to provide scientific advice and guidance to the COP, the other committees, working groups and the Secretariat, on all matters relevant to international trade in animal and plant species included in the Appendices, which may include proposals to amend the Appendices;
— to establish a list of those taxa included in Appendix II that are considered to be significantly affected by trade, and review and assess all available biological and trade information including comments by the range states on these taxa;
— to assess information on those species for which there is evidence of a change in the volume of trade or for which specific information is available indicating the necessity of a review;
— to undertake a periodic review of animal and plant species in the CITES Appendices;

— to draft resolutions on scientific matters related to animals or plants, for consideration by the COP;
— to deal with nomenclature issues.[70]

At the COP12 meeting in Santiago, Chile in 2002, the Secretariat proposed to combine the Animals and Plants Committees and form one Scientific Committee. Additionally, the Secretariat recommended to create an Implementation Committee.[71] However, it appears that these proposals have not been implemented.

v. The Management and Scientific Authorities

Each Party to the convention has to have at least one Management Authority as well as a Scientific Authority.[72] The Management Authority is responsible on behalf of the Party for administering the permits and certificates and the communication with the Secretariat. The Scientific Authority of each Party advises the Management Authority on the effects that trade in a certain species has on its status.[73]

vi. The Financial Budget

The convention is silent on the financing of CITES, except (after the adoption of the amendment in 1979) that the COP may adopt financial provisions.[74] In that same year, the COP established the CITES Trust Fund into which each Party is supposed to pay an annual contribution. The following contributions from the Parties have been calculated for the triennium 2009-2011: USD 4.90 million for 2009, USD 5.43 million for 2010 and USD 5.15 million for 2011.[75] The Parties' contributions are based on the United Nations scale of assessment, adjusted for the fact that not all UN members are a Party to CITES. Besides their fixed annual contribution, Parties are requested to make 'special contributions' into the fund,[76] but other sources, such as states that are not Parties, other governmental or inter-governmental organisations and NGOs, are also welcome to make donations to it.[77] Parties are supposed to pay their annual contributions in advance. Several Parties appear to be in arrears, in some cases already for many years. By the end of May 2010, the total amount of unpaid contributions was USD 3 million.[78]

Parties, governmental or intergovernmental organisations, NGOs, foundations and the private sector can make voluntary contributions, which are mostly meant to directly benefit specific projects.[79] A list of approved donors has been prepared by the Secretariat.[80] As of 2004, the annual additional funding was about USD 1.1 million, with the exception of 2006, when it totalled to over USD 3 million due to a contribution of nearly USD 2 million from the European Commission, and 2008, when it was only USD 0.5 million.[81]

At the fourteenth COP meeting in 2007, the proposed costed programme of work for the Secretariat for the triennium 2009-2011 was discussed.[82] The total programme requirements, based on the tasks that result from existing resolutions, decisions and the Strategic Vision 2008-2013, were costed at USD 10.13 million for 2009, USD 11.21 million for 2010 and USD 10.81 million for 2011.[83] These amounts substantially exceed the calculated contributions for this period, and it is most unlikely that voluntary contributions will make up the shortfall. The COP has instructed the Secretariat to take 'into account available staffing resources and financial means'.[84] In other words, it will be impossible for the Secretariat to carry out all the proposed tasks and clear priorities have to be set.

The funding situation of the convention is often referred to as problematic and the contributions of the Parties appear to be hardly sufficient to cover the core administrative costs of the bodies of the convention. In the Strategic Vision through 2005 under Goal 7 it is confirmed that 'the present funding barely covers the Convention's primary expenditures'.[85] Reeve has stated that 'while parties profess to support measures to improve implementation, enforcement and compliance, it is clear that they are not prepared to pay for it with increased contributions to the trust fund'.[86] Moreover, late payments cause further difficulties. Voluntary contributions by donors, the so-called external funding, appear to be limited and do not cover the deficit. One of the three goals in the CITES Strategic Vision 2008-2013 is to 'secure the necessary financial resources and means for the operation and implementation of the convention'.[87] The objective is to have sufficient resources available (1) to ensure the operation of the convention, (2) to ensure compliance with and implementation and enforcement of the convention and (3) to implement capacity-building programmes.[88] If 'sufficient resources' are meant to cover the proposed programme of work for the Secretariat for the period 2009-2011, then this goal is far from being realised.

vii. Conclusion

The institutions of the convention appear to work well. The meetings of the COP are major events that receive much attention from the world's press. COP14, which took place in 2007, was attended by some 1,250 participants from 151 Parties. Numerous observers from many organisations were also present.

The Secretariat does a considerable amount of work with a relatively small team and a limited budget. The Standing Committee and the Technical Committees also seem to operate well. Documents resulting from the meetings of the COP and the committees are (now) publicly available.

However, the financial situation of the convention appears to be a persisting problem. The budget needed to carry out the proposed programme of work for the Secretariat for the triennium 2009-2011, which is based on existing resolutions, decision and the Strategic Vision 2008-2013, substantially exceeds the expected contributions from the Parties and other donors. Consequently, the Secretariat has to set priorities and limit its planned activities (in cooperation with the Standing Committee), which will impair the operation and implementation of the convention. The benchmark requires the bodies of the convention to have adequate financial budgets to perform their tasks. The contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory.**

2.3 Element 3: Environmental NGOs and Other Stakeholder Groups

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.*

The convention allows for the participation of non-parties in the meetings of the COP.[89] Representatives of the UN and its agencies and of states that are not a Party to the convention can participate as observers, but have no voting rights.[90] Bodies or agencies

such as international and national environmental NGOs and national and international governmental agencies that are technically qualified in protection, conservation or management of wild fauna and flora, are also allowed to be represented by an observer at the COP meetings, unless at least one-third of the Parties present object. National NGOs require prior approval from the state in whose territory they are based.[91] The Secretariat could further decide to be assisted by suitable intergovernmental and non-governmental international or national agencies and bodies.[92]

More recently, the COP adopted a resolution on the participation of observers at meetings of the COP, in which several additional issues were decided.[93] At COP meetings for instance, seating space should (if possible) be made available to observers, who should also be allowed time to make interventions in the various sessions and be invited to participate in working groups, while the Secretariat is supposed to distribute informative documents prepared by observers.

Observers of 'any body or agency technically qualified in protection, conservation or management of wild fauna and flora' may be allowed, under certain conditions, to be present at the meetings of the Standing Committee and to participate, but only during the discussion of specific agenda items as determined by the committee.[94] Until 2002, in practice only the IUCN, UNEP-WCMC and TRAFFIC were allowed to participate, but the Standing Committee has since agreed to permit the participation of observers from other NGOs.[95]

The Chairmen of the Animals and Plants Committees may invite any person or organisation to participate as observer, but it is also possible for any person or organisation to submit a request to participate to them.[96]

All observer organisations, except the United Nations and its specialised agencies, have to pay a standard charge of USD 600 to participate in the meetings of the above mentioned bodies.[97]

One of the objectives in CITES Strategic Vision 2008-2013 is that 'cooperation with relevant international environmental, trade and development organizations is enhanced'.[98] So far, CITES has probably not been considered to be the most welcoming convention in relation to the participation of NGOs at its meetings. As Gillespie points out in his article 'Facilitating and Controlling Civil Society in International Environmental Law', the facts that under the convention a distinction is made between international and national NGOs (the latter need prior approval from the state in whose territory they are based), that NGOs must be 'technically qualified' instead of just 'qualified' and that there is no financial assistance available to NGOs to visit the COP meetings (a fee has to be paid instead), restrict their possibilities to participate.[99]

CITES has built up relationships with many organisations representing various stakeholder groups, and several memoranda of understanding (MOU) or cooperation (MOC) have been signed with these organisations. The most important CITES stakeholders will be discussed below.

i. Environmental NGOs

The three environmental NGOs that play the most prominent role in the implementation and enforcement of the convention are the IUCN, the WWF and, after its foundation by both these organisations, the Trade Record Analysis of Fauna and Flora in Commerce (TRAFFIC). The IUCN was already involved in the creation of CITES and there has been a

close relationship ever since. In 1999, the Secretariat of CITES and the IUCN signed a Memorandum of Understanding (MOU) in which the IUCN's tasks in relation to CITES have been set out.[100] The five main ones are: (1) to provide scientific information, (2) to develop and implement field projects, (3) to assist with training activities, (4) to play a scientific and technical advisory role, as well as a (5) facilitating role.

The WWF has also been actively involved in the CITES COP meetings since the treaty came into being and its website indicates it brings policy as well as field expertise to the convention.[101] The WWF has taken many conservation initiatives for its so-called priority species, which are usually listed in one of the three CITES appendices as well.

In 1976, the IUCN, with the help of the WWF, established TRAFFIC, which is a wildlife trade monitoring network. The committee that governs TRAFFIC is composed of members of the WWF and the IUCN.[102] The mission of TRAFFIC is 'to ensure that trade in wild plants and animals is not a threat to the conservation of nature'.[103] It operates through a network of eight regional programmes, and is based in about 30 countries. Its head office is located in Cambridge, UK. The activities of TRAFFIC include obtaining market intelligence on emerging or newly discovered trade-related threats to wildlife, making emergency interventions for selected species threatened by trade,[104] supporting trade measures that help improve the security of key wildlife resources,[105] and focusing action on wildlife trade hotspots.[106] Peter Sand, General Secretary of CITES from 1978-1981, praises TRAFFIC's transparency and calls it 'probably one of the best operational information sources available to any environmental treaty'.[107] In 1999, an MOU was signed between the Secretariats of CITES and TRAFFIC focusing on capacity building.[108]

Other environmental NGOs relevant to CITES are the International Fund for Animal Welfare (IFAW) and Fauna and Flora International. The former NGO organises worldwide campaigns on key animal issues that are often related to CITES, such as the ivory trade.[109] The latter offers technical support by means of research and policy recommendations.[110] Both NGOs are participating at the COP meetings of CITES.

Notwithstanding the important role played by the above mentioned NGOs, particularly TRAFFIC and the IUCN, the actual number of NGOs actively involved in CITES is relatively small.[111] This might be the result of the divide between pro-trade NGOs and those that would rather halt the trade in many CITES species.[112] The latter are probably quite reluctant to get involved in CITES. A case in point is a recent statement by the IFAW expressing concerns about the 'push by economic interests to make the convention increasingly trade-friendly'.[113]

ii. Scientists

The above mentioned environmental NGOs, especially the IUCN, the WWF and TRAFFIC, are also important in relation to the provision of scientific information on wildlife trade and the status of species in general.

Additionally, the UNEP World Conservation Monitoring Centre (UNEP-WCMC) is vital to CITES by providing information management services.[114] Firstly, it manages the CITES trade database, which includes the annual data of all issued export and import licences. Secondly, it maintains the database of CITES-listed species, and, thirdly, it publishes and regularly updates the Checklist of CITES Species.

iii. Bodies of Biodiversity-Related and Other Environmental Conventions

The importance of cooperation with other environmental treaties has been laid down in Goal 3 of the CITES Strategic Vision 2008-2013: 'Contribute to significantly reducing the rate of biodiversity loss by ensuring that CITES and other multilateral instruments and processes are coherent and mutually supportive'.[115] However, the participation of the CITES Secretariat in the Biodiversity Liaison Group does not seem to be a priority, as it has made little information available about the group's progress.[116]

Relations with two other biodiversity-related conventions assessed in this study have been formalised. An MOC was signed with the Secretariat of the CBD in 1996 and an MOU with the Secretariat of the CMS in 2002. The MOC with the Secretariat of the CBD, which is quite general in nature, also provides for a joint work plan. This includes specific areas of cooperation such as harvesting of non-wood forest products such as bush meat, taxonomy issues, threats to habitats of endangered species, a global strategy on plants and the use of green labelling of wildlife products. The MOU with the Secretariat of the CMS is similarly broad-based, but in 2005, the secretariats of both conventions agreed upon a list of joint activities for the period 2005-2007, which includes more specific actions.[117] CITES Resolution 13.3 more specifically states that regional collaboration involves species such as the saiga antelope, marine turtles, whale sharks and sturgeons.[118]

In 1994, the Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora was adopted for the African region. It entered into force in 1996 with the objective of enforcing CITES in Africa.[119] In 2000, the CITES Secretariat signed an MOU with the Task Force of the Lusaka Agreement with the intention to cooperate closely especially in relation to intelligence regarding illegal trade in CITES specimen.[120]

In 2002, an MOU was signed with the Secretariat of the Basel Convention concerning the control of transboundary movements of hazardous wastes and their disposal and the secretariats of the Vienna Convention for the protection of the ozone layer and its Montreal Protocol, underlining the shared objective of combating and preventing illegal traffic in some form and expressing their intention to cooperate closely.[121]

A long-standing relationship has been in place with the International Whaling Commission (IWC), the main body of the International Convention for the Regulation of Whaling.[122] Already in 1979, the COP of CITES decided upon a resolution that recommended the CITES Parties not to issue any import or export permit or certificate for introduction from the sea for primarily commercial purposes of any specimen of a species or stock protected from commercial whaling by the IWC.[123] Meanwhile, the Secretariat of CITES has observer and adviser status at the meetings of the IWC and the IWC has observer status at the CITES COP meetings. The relationship with the IWC as well as issues concerning the trade in and conservation of cetacean specimens are now covered by Resolution Conf. 11.4 (Rev. CoP12).[124]

Finally, the CITES Secretariat has committed itself to close cooperation with the Secretariat of the International Tropical Timber Agreement (ITTO) on matters related to tropical timber species threatened by international trade and the sustainable management of tropical timber producing forests.[125]

iv. International and Regional Organisations and National Departments

CITES operates under the auspices of UNEP and both institutions cooperate closely. UNEP provides the CITES Secretariat, and in a Memorandum of Agreement between the Standing Committee and the Secretary General of CITES and the Executive Director of UNEP the relationship has been clarified especially regarding the management of the staff working for CITES and the administration of the CITES Trust Fund.[126] UNEP also plays a coordinating role in the collaboration between the multilateral environmental agreements, and gives support in areas such as training and press work.[127]

Since CITES is very much concerned with the prevention of illegal trade in wildlife and wildlife products it is not surprising that relations with organisations such as ICPO-Interpol and the World Customs Organisation have been established. MOUs were signed with both organisations in which the exchange of information, the raising of awareness and the provision of training are central subjects.[128] ICPO-Interpol was established in 1923 and has developed into the largest international police organisation with 186 member countries.[129] Although wildlife crime is not one of its priorities, it has recently appointed a full-time officer to manage the wildlife crime programme. An Interpol wildlife working group has also been established to support the Parties to CITES with detecting, preventing and reporting international wildlife crimes.[130] A special guide was developed for the CITES Management Authorities in which the operations of both Interpol and CITES are explained and recommendations are made regarding the cooperation between the Management Authorities and Interpol.[131]

The World Customs Organisation was established in 1952 and has currently 173 members.[132] Its mission is to enhance the effectiveness and efficiency of customs administrations and it lists as one of its tasks to combat fraudulent activities. It offers technical assistance and training services to its members.[133] A joint database has been developed on CITES offences.[134]

At a national level, MOUs have also been signed with the Department for Environment, Food and Rural Affairs (DEFRA) of the United Kingdom and with the U.S. Fish and Wildlife Service Office of Law Enforcement/Clark R. Bavin National Fish & Wildlife Forensic Laboratory (Office of Law Enforcement).[135] Since both the UK and the USA are major importers of CITES related wildlife and wildlife products, close cooperation with these departments is important. The MOU signed with DEFRA is mainly focused on the exchange of information, while the MOU with the U.S. Office of Law Enforcement also includes joint actions to increase public awareness, to organise training and to advise on seizure, handling, storage, preparation and submission of items for forensic examination. The U.S. Office of Law Enforcement further commits itself (within the limits of its resources) to 'make its services freely available to any Party to CITES'.[136]

In 2006, the CITES Secretariat signed an MOU with the Food and Agriculture Organisation (FAO) of the UN. This cooperation focuses on listed fish species, such as sturgeon and humphead wrasse, as well as on fish species proposed for listing. FAO also assists the CITES Secretariat and the exporting countries to improve the monitoring and management of fisheries resources.[137]

Although no formal relationship exists between the secretariats of the World Trade Organisation (WTO) and CITES, the WTO should be discussed under this heading, since a potential conflict between the two treaties does exist. The WTO focuses on the liberalisation of world trade and any trade restrictions are seen as questionable, even if

implemented for environmental reasons.[138] It appears from the previous CITES Strategic Vision and Action Plan that the WTO has recognised and accepted CITES measures.[139] However, the latest Strategic Vision 2008-2013 is silent on the issue.[140] So far, conflict with the WTO has not arisen.

v. Corporate Sector

Since CITES is a factor in the international wildlife trade, companies engaged in this business and their trade associations have an interest in this treaty and will try to influence the decision-making. It appears that intensive lobbying of Parties by trade associations that represent certain sectors of wildlife trade is common practice.[141]

Further involvement of the corporate sector is mainly related to funding, which generally involves relatively modest amounts. A special procedure for the approval of externally funded projects has been developed.[142] The objectives and legal status of any organisation (not limited to the private sector) that intends to become an approved donor to CITES will be evaluated, but the following organisations are excluded:

— organisations that are known through reliable evidence available to the Secretariat to have been involved in illegal trade in CITES-listed species or other relevant wildlife conservation infractions, whether convicted or not;
— individual companies directly involved in legal commercial trade in CITES species;
— organisations that have deliberately brought the Convention into public disrepute.[143]

However, trade associations, such as the All Japan Association of Reptile Skin and Leather Industry, the American Fur Merchants Association and the Chinese Medicine Merchants Association, have not been excluded and some of the additional funding is provided by them.[144] Real or perceived conflicts of interest can therefore not be ruled out.

vi. Conclusion

The participation of environmental NGOs in CITES appears to be somewhat limited. Obviously, the IUCN, the WWF and TRAFFIC play a major role, but the involvement of other environmental NGOs typically does not go beyond attending the COP meetings. This could be partly due to the fact that CITES has been rather restrictive in relation to the participation of environmental NGOs. It is also likely that the legal trade in wildlife and its products, is too controversial for many. As Sand points out 'a characteristic feature of the trade is its luxury orientation, in response to consumption patterns often ranging from the non-essential to the perverse',[145] and many environmental NGOs will feel uncomfortable to be seen to facilitate this trade. This might also be the case for the corporate sector, with the likely exception of those companies that are already ineligible to become an 'approved donor'. However, some trade associations representing companies involved in wildlife trade have become approved donors, which could lead to the very conflicts of interest that the COP sought to prevent by excluding member companies to become approved donors.

Relations with the other biodiversity-related conventions seem to have been developed furthest with the CBD and the CMS, and an MOC and MOU respectively have been signed.

For the enforcement of CITES, it is necessary to have good working relations with organisations such as ICPO-Interpol and the World Customs Organisation and this seems to

be the case. The practical value of a number of MOUs signed with other international, regional and national organisations is somewhat harder to establish.

Although not without opportunities for further improvements, the COP is facilitating active cooperation with environmental NGOs and other stakeholders. As a consequence the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.4 Element 4: Objectives, Measures and Timing

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.*

The problem that CITES intends to address is not defined in the convention. However, in the CITES Strategic Vision through 2005, which was adopted in 2000 it is stated that: 'The Convention resulted from an expression of concern by the 1972 United Nations Conference on the Human Environment in Stockholm, Sweden, concerning the rate at which the world's wild fauna and flora were being threatened by unregulated international trade'.[146] The latest Strategic Vision 2008-2013 is silent on the issue.[147]

It seems reasonable to assume that it is this threat that the CITES objective(s) and measures seek to confront, which can be found partly in the convention itself and partly in the resolutions and decisions adopted by the COP at later stages.

In this sub-section the objective(s) of the convention as well as the measures that have been defined to realise them will be scrutinised, whereas any timetables linked to the implementation of the objective(s) and measures will be examined as well.

i. The Objectives

There is no clearly defined objective to be found in the convention.[148] The preamble states that 'international cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade', which is more a statement of fact than an objective. However, the central theme of the convention appears to be that trade in specimens of CITES species should not be detrimental to the survival of that species.[149] On the CITES website, the aim of the convention is expressed as follows: 'to ensure that international trade in specimens of wild animals and plants does not threaten their survival'.[150]

In the Strategic Vision through 2005 a slightly more specific 'purpose' is mentioned: 'To ensure that no species of wild fauna and flora becomes or remains subject to unsustainable exploitation because of international trade'. In the latest Strategic Vision 2008-2013 the following CITES vision statement has been included: 'Conserve biodiversity and contribute to its sustainable use by ensuring that no species of wild fauna and flora becomes or remains subject to unsustainable exploitation through international trade, thereby contributing to the significant reduction of the rate of biodiversity loss'. The first part of this vision statement 'conserve biodiversity and contribute to its sustainable use' as well as the final part 'thereby contributing to the significant reduction of the rate of biodiversity loss' are newly added. This last addition is in line with the decision taken by the COP of the CBD

in 2002 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth'.[151]

No definition is given for terms such as 'conservation' and 'sustainable use'. However, for an explanation of the term 'sustainable use' the CITES COP refers to the definition given in the CBD: 'the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining the potential to meet the needs and aspirations of present and future generations'.[152] Furthermore, it requests its Parties to use the Addis Ababa Principles and Guidelines, which were agreed upon by the COP of the CBD and which further clarify 'sustainable use' of biodiversity.[153] In relation to wildlife trade, the term 'sustainable use' is controversial and has caused many debates within CITES. Some would argue that this is the only way to save endangered wildlife, others are of the opinion that endangered wildlife should be protected and not 'used'.[154] The COP has made its position clear in Resolution Conf. 8.3 in which it 'recognizes that commercial trade may be beneficial to the conservation of species and ecosystems and/or to the development of local people when carried out at levels that are not detrimental to the survival of the species in question'.[155]

ii. Measures and Timing

The measures to regulate these objectives can be found in the convention, but additional measures have been decided upon by the COP and are usually laid down in resolutions. The most relevant measures will be discussed below.

Fundamental principles of the Convention (Article II)

Species that are covered by CITES are listed in three appendices. Appendix I includes all species threatened with extinction.[156] Appendix II includes all species that are not necessarily threatened with extinction now, but for which trade should be regulated in order to avoid the threat of extinction.[157] It further contains look-alike species, which are on the list due to their similarity in appearance with threatened species listed in Appendix II.[158] Appendix III includes species that are already protected by at least one Party that has requested the cooperation of other Parties to CITES in controlling the trade in this species.[159]

At an early stage, listing criteria were developed for each of the appendices. The first set of criteria for Appendix I and II are referred to as the Bern Criteria.[160] The Parties in favour of the exploitation of wildlife resources perceived these criteria as too rigid, since it was difficult to de-list or down-list a species in one of the appendices.[161] The criteria have been reviewed several times and the ones that are currently applicable have been adopted in 1994 and are referred to as the Fort Lauderdale criteria.[162] These criteria, laid down in Resolution Conf. 9.24 (Rev.COP14), are considered to be more specific and based on ecology.[163] The precautionary principle still applies. However, the listing of species in the appendices is not just based on biological criteria, but also on trade criteria. It is obvious that these criteria and their correct application are of crucial importance for the proper functioning of the convention.[164] The listing of Appendix III species is governed by Resolution Conf. 9.25 (Rev. CoP14).[165]

To date, the appendices contain about 34,000 species, of which roughly 5,000 are animal species and 29,000 are plant species. There are about 1,000 species listed in Appendix I, 33,000 in Appendix II and 171 in Appendix III.[166]

Trade regulations for protected species per Appendix (Articles III, IV & V)

International trade in specimens of species included in Appendix I will only be authorised in exceptional circumstances.[167] An export permit issued by the Management Authority of the exporting Party is required as well as an import permit issued by the Management Authority of the importing Party.[168] The Management Authorities of the exporting and importing Parties can only issue these permits if the Scientific Authorities of both Parties have declared that the export/import is not detrimental to the survival of the species (the so-called 'non-detriment finding').[169] Furthermore, the Management Authority of the exporting Party has to be satisfied that an import permit has been granted for the specimen,[170] that the specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora,[171] and that any living specimen will be so prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment.[172] The Management Authority of the importing Party has to be satisfied that the specimen will not be used for 'primarily commercial purposes'.[173] The use for scientific research, captive breeding or education and training could for instance be allowed.[174] The term 'primarily' does not prevent the specimen to be partly used for commercial purposes. A resolution on this issue provides certain general principles, but not an unambiguous definition of the term 'primarily commercial purposes'. One important principle is 'that all uses whose non-commercial aspects do not clearly predominate shall be considered to be primarily commercial in nature with the result that the importation of specimens of Appendix-I species should not be permitted'.[175] A final requirement is that the Scientific Authority of the importing state must be satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it.[176]

For the re-export of an Appendix I specimen a re-export certificate is required, which can only be granted if: (1) import took place in accordance of the provisions of the convention,[177] (2) risk of injury, damage to health or cruel treatment are minimised,[178] and (3) an import permit has been granted.[179] However, this third requirement only applies to living specimens, which could lead to abuse.[180]

The requirements for international trade in specimens of species included in Appendix II are less strict. The export permit or re-export certificate is, however, still required, and can only be issued if certain conditions are met.[181] In case of the export of Appendix II specimens these are: (1) that a Scientific Authority of the exporting state has advised that such export is not detrimental to the survival of the species,[182] (2) that the Management Authority of the exporting state is satisfied that the specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora,[183] and (3) that the same authority is satisfied that any living species will be so prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment.[184] For re-export only the second and third condition apply.[185]

There is no import permit required for the (re-) export of Appendix II specimens, but some Parties still insist on them referring to the provision in the convention that allows Parties to adopt stricter domestic measures.[186] Article IV, paragraph 3 of the convention places a huge responsibility on the Scientific Authority active in each Party by requiring it to monitor all

the export permits granted by that state as well as the actual exports for all specimens of species included in Appendix II. It should subsequently determine whether the export in specimens of any such species should be limited 'in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I'. If this is the case, the Scientific Authority of each Party has to advise its Management Authority on which measures to take.[187] Special procedures, but similar requirements are in place for specimens introduced from the sea if the species concerned are included in Appendix I[188] or Appendix II.[189]

Many commentators are of the opinion that the system in relation to Appendix II species is too lenient and that it should have the same double security mechanism (import permit required) as laid down for Appendix I species.[190] It seems that because of this leniency many species have already been transferred from Appendix II to Appendix I. This development led the former Secretary General of CITES to comment that this should 'be considered as an example of the failure of the Parties to fulfil their obligations under the Convention'.[191]

The restrictions for the international trade in specimens included in Appendix III mainly apply to the Parties that have submitted that species for inclusion in Appendix III. These Parties have to issue an export permit for the trade in the specimens of these species. Importing Parties have to request a certificate of origin and an export permit if the specimens come from a Party that has included the species in Appendix III.[192] Otherwise, just a certificate of origin would be sufficient.[193] A special procedure exists for re-export.[194] In relation to the requirement to minimise the risk of injury, damage to health or cruel treatment of exported live animals during shipment, several resolutions have been agreed upon, including a list of recommendations. For instance, Parties have been advised to apply the International Air Transport Association (IATA) Live Animals Regulations to air transport and other forms of carriage, and to incorporate these regulations in their domestic legislation.[195] Parties that permit the import of live animals are urged: (1) to maintain records of the number of live specimens per shipment and of mortalities in transport, (2) to note the causes of mortality, injury or damage to health, and (3) to provide these data along with their annual reports.[196]

The convention does make certain exemptions to the general trade principles in relation to specimens acquired before the existence of CITES,[197] specimens that are household or personal effects,[198] specimens bred in captivity or artificially propagated,[199] the non-commercial loan, donation or exchange of herbarium specimens and live plant material between registered scientific institutions or scientists,[200] and to travelling exhibitions, such as zoos and circuses.[201] Additional exemptions have been decided upon by the COP, such as ranching and split-listing.[202] These exemptions will be assessed in more detail in sub-section 2.6.

Export quotas (Various Recommendations)

Although the convention does not mention the use of export quotas in relation to listed species, they have become common practice. Initially developed to get round the strict Bern criteria to down-list a species from Appendix I to Appendix II, the down-listing of a species is now usually linked to the introduction of quotas, limiting the number of specimens of a certain species for export. The COP can also set quotas for species that are still listed in Appendix I. The export quotas that are adopted by the COP are either specified in the CITES

Appendices, such as for the African elephant, or in a resolution, such as for the markhor and black rhinoceros in relation to hunting trophies.[203]

It is also possible that Parties set voluntary export quotas for species in Appendix II and III,[204] thereby replacing the case by case non-detriment finding requirement. These quotas generally relate to a calendar year. Each Party must inform the Secretariat about its export quotas.[205] The Secretariat subsequently informs the other Parties by publishing a Notification.[206]

Export quotas are now frequently used and have started to replace the 'non-detriment finding' in Articles III and IV of the convention. Willem Wijnstekers, Secretary General of CITES until 2010, refers to them as 'probably the most effective tool for the regulation of international trade in wild fauna and flora currently available', but admits that they have their limitations since scientific data on which to base the quota levels are often lacking.[207] The use of export quotas has been criticised by several commentators. Reeve has pointed to 'delayed detection of quota overages, wide variations between parties in quota-setting and 'bureaucratic' rather than biologically sound quotas'.[208] D'Amato and Engel consider them to be in 'direct contravention of the language and spirit of the treaty'.[209]

Permits and certificates (Article VI)

Export permits used in relation to CITES need to contain information as specified in a model set out in Appendix IV of the convention.[210] Each permit or certificate has to contain the title of the convention, the name and identifying stamp of the Management Authority that is granting it, and a control number assigned by the Management Authority.[211] The export permit is only valid for a period of six months.[212] Additional measures regarding permits and certificates have been decided upon by the COP.[213]

A Management Authority may affix a mark on a specimen, which can be an imprint or lead seal, or a coded microchip, to assist in identifying the specimen.[214] Marking has become more important with the introduction of special rules and exceptions such as the quota systems, captive breeding and ranching. Marks are for instance used for ivory, leopard skins, crocodile skins and caviar.[215]

Measures to be taken by the Parties (Articles VIII & IX)

The convention includes a list of measures to be taken by the Parties. Firstly, Parties have to designate at least one Management Authority as well as a Scientific Authority.[216] Furthermore, the convention requires Parties to take 'appropriate measures to enforce the provisions of the present Convention and to prohibit trade in specimens in violation thereof', including measures 'to penalize trade in, or possession of, such specimens, or both, and to provide for the confiscation or return to the State of export of these specimens'.[217]

Parties also have to ensure that only a minimum delay occurs when specimens of listed species pass through formalities required for trade.[218] All living species should be properly cared for during transit, holding or shipment.[219] Confiscated specimens should be entrusted to a Management Authority of the confiscating state. After consultation with the exporting state, the specimens will be returned to that state at its expense or brought to a rescue centre or other appropriate place.[220] However, it should be noted that the convention does not cover the treatment of animals (and plants) from the point of capture until the beginning of transport, nor has the COP given this issue much attention. Many live

specimens die before (or shortly after) transport. For instance several bird species have high mortality rates before transport,[221] and an estimated 90% of wild-caught reptiles die in the first year of captivity.[222] Several experts, such as the World Organisation for Animal Health (OIE), have voiced their concern about this lacuna.[223]

Records of trade in specimens of listed species must be maintained by each Party[224] and reported annually to the Secretariat.[225] A biennial report on the legislative, regulatory and administrative measures taken to enforce the provisions of the convention should be send by each Party to the Secretariat as well.[226]

Trade with non-parties (Article X)

The convention lays down that in case of export, re-export or import from a state that is not a Party to CITES, 'comparable documentation issued by the competent authorities in that State which substantially conforms with the requirements of the present Convention for permits and certificates may be accepted in lieu thereof by any Party'.[227] In practice, trade with non-parties has created a loophole in CITES,[228] and this provision had to be reinforced by several resolutions.[229] It has now been agreed that in certain cases consultation with the Secretariat will take place before documentation from non-Parties will be accepted.[230] The issue concerning trade with non-parties has become less urgent now CITES has almost reached global membership.[231]

Stricter domestic measures (Article XIV)

Parties are allowed to adopt stricter domestic measures with regard to the trade in specimens of species included in the appendices and can even decide to completely prohibit this trade.[232] They are also allowed under the convention to restrict or prohibit trade in species not included in one of the Appendices.[233] Resolution Conf. 6.7 recommends Parties that intend to introduce stricter domestic measures to involve range states in this decision if it concerns specimens of non-indigenous species and, in case these measures had already been introduced prior to this resolution, to consult on the appropriateness with range states if so requested. Many Parties have adopted stricter domestic measures, which will be discussed in more detail in sub-section 2.6.

Amendments to the Appendices (Articles XV & XVI)

Special procedures are laid down in the convention to amend the appendices. Any Party can propose an amendment to Appendix I or II,[234] and these amendments may be decided upon at the meetings of the COP or by postal procedure. At a COP meeting, a two-thirds majority of Parties present and voting is necessary for its adoption.[235] Some examples of amendments decided at CITES COP14 in 2007 are the inclusion in Appendix I of the slender-horned gazelle, the transfer from Appendix I to II of Brazil's population of the black caiman and the inclusion in Appendix II of the eel.[236]

As of COP9 in 1994, secret balloting at COP meetings in relation to the amendment of the appendices was introduced.[237] Since this development was seen by some Parties to affect transparency, it was not unanimously supported. Nevertheless, voting by secret ballot has now been included in the Rules of Procedure,[238] and has become the norm for all disputable amendments.[239] If adopted, amendments enter into force 90 days after the meeting.[240] The

postal procedure gives Parties the opportunity to introduce amendments to Appendices I and II between meetings of the COP,[241] and the same term of 90 days applies before an amendment adopted by postal vote enters into force.[242] The Secretariat communicates the responses of the Parties and other interested bodies to the proposed amendments and will also give its own recommendations.[243] Furthermore, since 1987, the IUCN Species Survival Commission and TRAFFIC conduct technical reviews of the proposals.[244] During the 90 days period following adoption, each Party can make a reservation with respect to the amendment.[245] This point will be discussed in more detail in sub-section 2.6.

Parties are allowed to submit new species for inclusion in Appendix III to the Secretariat, which will communicate any addition to the other Parties.[246] A Party that has submitted a new species may withdraw it again at any time, which will also be communicated by the Secretariat to all Parties.[247] Parties can also make a reservation in relation to this type of amendment.[248]

The criteria applicable to the amendments of Appendix I and II have been discussed earlier in this sub-section.[249]

Additional measures (Various Recommendations)

Additional measures have been decided upon, such as the monitoring tools MIKE (Monitoring the Illegal Killing of Elephants),[250] and ETIS (the Elephant Trade Information System),[251] which concern the trade in elephant products. Both these tools will be discussed in more detail in sub-section 2.7. A Tiger Enforcement Task Force (TETF) was established in 2001 to combat illicit trade in tigers and tiger parts and derivatives.[252]

Another initiative is the introduction of the Trade Infraction and Global Enforcement Recording System (TIGERS).[253]

In 1992, the National Legislation Project was launched, directing the Secretariat to identify and support the Parties that had not (completely) implemented the convention.[254] This project is still continuing and will be further examined in the next sub-section.

Strategic visions (Various Recommendations)

Reference should also be made to the introduction of the so-called Strategic Visions by the COP. The first one, the Strategic Vision through 2005, was adopted by the COP in 2000 and was later extended to 2007.[255] In this document seven goals were identified to improve the working of the convention and an action plan comprising 139 action points was developed to achieve these goals. At the COP of 2007, a new CITES Strategic Vision 2008-2013 was launched with the following three goals:

— Ensure compliance with and implementation and enforcement of the convention;
— Secure the necessary financial resources and means for the operation and implementation of the convention;
— Contribute to significantly reducing the rate of biodiversity loss by ensuring that CITES and other multilateral instruments and processes are coherent and mutually supportive.[256]

These goals differ from the seven goals in the first Strategic Plan, both in contents and quantity, but no explanation is provided for this new approach. Objectives have been

defined for each of the three goals, and some 'goals' of the first Strategic Vision re-emerged as 'objectives' in the latest version. Continuity between the two Strategic Visions appears to be limited and the latest Strategic Vision lacks an action plan. However, a working group of the Standing Committee has prepared a set of indicators, which was approved by the Standing Committee.[257] So far, it seems that the outcome of the first Strategic Vision has not been evaluated.

Timing

The first Strategic Vision covered the period 2000-2007, but no evaluation of its results has been presented. The new Strategic Vision 2008-2013 does not seem to build on its predecessor and lacks an action plan.

The National Legislation Project, which will be discussed in detail in the next sub-section, does include a timetable. The implementation of the convention by the individual Parties has been assessed and in those cases where this appeared to be insufficient, Parties have been informed when they are expected to have resolved the outstanding issues. If satisfactory actions are not forthcoming, trade related sanctions could be imposed.

iii. Conclusion

The objective of CITES is somewhat confusing. The basic principle of the convention itself seems to be that trade in specimens of CITES species should not be detrimental to the survival of those species. This is in line with the aim of the convention as mentioned on the CITES website. However, in the CITES Strategic Vision the focus is clearly on the sustainable exploitation of CITES species. There is no clarification as to how these objectives relate to each other and it remains unclear whether 'not detrimental to the survival of the species' and 'no unsustainable exploitation of the species' are supposed to provide the same level of protection. Be that as it may, both seem to offer not much more than a minimum of protection to the species concerned. In a case unrelated to CITES, the Federal Court of Australia stated with regard to endangered species that 'protection is not delivered if one merely assists a species to survive. Protection is only effective if it not only helps a species to survive, but aids in its recovery to a level at which it may no longer be considered to be threatened'.[258] The decision-making body of CITES appears to have opted for a narrower interpretation of protection. A position that does not seem to be fundamentally adjusted merely by including the goal to contribute to the significant reduction of the rate of biodiversity loss in the Strategic Vision 2008-2013.

The measures that have been laid down in the convention and by COP resolutions to realise the CITES objective(s) are extensive, but some serious flaws in the trade system have been identified. Examples are the relatively lenient approach towards trade in specimens of species listed in Appendix II, the quota systems that are often not based on scientific data and the fact that live specimens are offered no protection between capture and transport, a phase characterised by high mortality rates.

The Strategic Vision 2008-2013 could have shown more ambition. Its three goals are rather general and do not build on an evaluation of the previous Strategic Vision.

It seems that without an evaluation of the first Strategic Vision and without an action plan to accompany the latest Strategic Vision, the significance of the time frames indicated in

these Strategic Visions is rather limited. The National Legislation Project, however, sets a better example.

As a result of the lack of clarity about the convention's objectives, the flaws in its measures and the shortcomings of the Strategic Vision and the absence of timeframes, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.5 Element 5: Implementation

Benchmark: *For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.*

To make the trade system work, Parties have to implement the most important CITES provisions into national laws and regulations. However, it gradually became clear that implementation was severely lacking, and in 1992 the COP adopted a resolution in which it directed the Secretariat to identify the Parties 'whose domestic measures do not provide them with the authority to:

i) designate at least one Management Authority and one Scientific Authority;
ii) prohibit trade in specimens in violation of the Convention;
iii) penalise such trade; or
iv) confiscate specimens illegally traded or possessed'.[259]

These four elements of the so-called National Legislation Project are considered to be the basic CITES requirements.[260] Each Party so identified had to inform the Secretariat about the procedures, actions and time frames that it needed to establish the measures necessary to properly enforce the provisions of the convention.[261]

For the assessment the Secretariat divided the Parties into three categories:
Category 1: legislation believed generally to meet the requirements for CITES implementation;
Category 2: legislation believed generally not to meet all the requirements (but only some);
Category 3: legislation believed generally not to meet the requirements.[262]

The analysis of the legislation was carried out by the Environmental Law Centre of the IUCN and TRAFFIC USA in conjunction with the Secretariat. Parties could receive assistance with the development of new CITES legislation, while guidance documents were made available as well.[263]

Although much has taken place in the course of this project,[264] the focus of this study will be on its most recent results. The latest information dates from March 2007 and shows that 75 of the (then) 169 Parties have been placed in category 1,[265] 54 in category 2, 36 in category 3 and 4 pending.[266] The 29 dependent territories,[267] have been evaluated separately and 13 have been placed in category 1,[268] 12 in category 2 and 4 in category 3.[269]

Notwithstanding the progress that has been made through the National Legislation Project, there is still some way to go before three-quarters of the Parties qualify for

category 1. Obviously, Parties are also supposed to periodically review and improve their CITES legislation.[270] Trade sanctions have played an important role in the course of this project and have forced many of the Parties into compliance. This instrument will be discussed in more detail in sub-section 2.10.

Unfortunately, not much detail is available in relation to the status of implementation per individual element of the National Legislation Project. By and large, Parties seem to have designated their Management Authorities and Scientific Authorities. However, the level of expertise of these authorities is often questionable.[271]

Although the prohibition of trade in violation of the convention and the penalisation thereof as required by Article VIII, paragraph 1 are covered by the National Legislation Project, the Parties themselves decide upon the applicable sanctions. These can be administrative, civil or criminal, usually depending on the seriousness of the violation. It appears that only a limited number of Parties have included criminal sanctions.[272] Since violations of CITES regulations can be highly lucrative and may involve organised crime, the lack of criminal sanctions in many countries has been criticised both by the Secretariat and by commentators who argue that such sanctions are essential as a deterrent.[273] In a recent publication TRAFFIC states that 'those with low penalties become the gateway for illegal trade because if perpetrators are caught, low fines are simply written-off as a viable business cost'.[274]

An important aspect of the implementation that is not included in the National Legislation Project is the proper treatment of living specimens during transit, holding or shipment, to minimise the risk of injury, damage to health or cruel treatment.[275] The COP has dealt with this issue in Resolution Conf. 10.21 requesting the Parties to implement IATA's Live Animals Regulations and Perishable Cargo Regulations (for plants) into domestic legislation or policies.[276] Mortality rates for certain species during transport are still high.[277] To further address this situation the Secretariat has recently drafted legislative guidance for the transport of live specimens, which has to be reviewed by the Animals Committee.[278] Some major importers of live animals and plants, such as the EU, have introduced legally binding requirements in relation to the transport of live animals.[279] Under the EU regulation implementing CITES, the European Commission may restrict the import of live specimens of certain species in cases of high mortality during shipment or unlikely survival in captivity.[280]

The Secretariat, supported by the Standing Committee and the COP, has been actively involved in supervising the National Legislation Project.[281] As a consequence, the level of basic implementation of the convention is well-known and Parties that are still reluctant to implement the convention can be identified.[282]

Conclusion

As a result of the National Legislation Project the level of basic implementation of the convention is well-known. A lot of time and effort has been invested by the CITES bodies, especially the Secretariat, to supervise the implementation of the basic provisions of the convention by the Parties. The National Legislation Project has been a slow and drawn-out process, showing the difficulty of implementing an international biodiversity-related convention. So far, less than 50% of the Parties have fully implemented the basic provisions, which falls far short of the three-quarters required by the benchmark of this sub-section. Nevertheless, it is clear that the National Legislation Project has noticeably expedited the

implementation process and has made it more transparent as well. This result could have only been achieved through the Secretariat's active supervision.

Besides the requirement to penalise trade in violation of the convention as one of the four elements defined by the National Legislation Project, the type of sanction is also very important. Too often wildlife criminals get away with small fines because national legislation lacks more serious criminal sanctions. Although the severity of sanctions is not covered by CITES, this subject should have received more attention from the COP.

The care for living animals and plants during and (in case of Appendix I species) after transport is another important point that needs more consideration. It has been acknowledged by the COP that trade related mortality of CITES species undermines the concept of sustainable trade, but the implementation of relevant national legislation by the Parties dealing with this issue seems to lag behind.

Taking these issues into account, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.6 Element 6: Reservations, Derogations and Other Exceptions

Benchmark: *For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).*

i. Reservations

The provisions of the convention cannot be subject to any general reservations,[283] but specific reservations can be made with regard to the species listed in the appendices.[284] States can make a reservation for one or more species when depositing their instrument of ratification, acceptance, approval or accession.[285] Subsequently, reservations with regard to an amendment of the Appendices I and II can be made by each Party, but only during a period of 90 days following the adoption of the amendment.[286] Reservations regarding the species in Appendix III can be made at any time with respect to any species or any parts or derivatives.[287] Parties that have made a reservation will be treated as a state that is not a Party to the convention with respect to trade in the species (or parts or derivates in case of species in Appendix III) concerned.[288]

The number of reservations that were entered by the Parties on the most recent list of reservations seems remarkable.[289] About 57 species in Appendix I and a similar number in Appendix II are the subject of reservations made by one or more Parties.[290] Fourteen different Parties have made reservations concerning species in Appendix I and the same number of Parties (not all the same Parties) have made reservations concerning species in Appendix II. Some Parties feature prominently on the list. Switzerland, which is the depository government for CITES, has entered reservations for 41 species in the Appendices I and II, and is often joined by Liechtenstein. No reasons for these reservations are given. However, Sand, who used to be the Secretary General of CITES from 1978 to 1981, indicates that in the case of Switzerland the reason for these reservations is to avoid overburdening its custom officers and that these reservations are insignificant in practice.[291] More controversial reservations have been made by Japan, Iceland and Norway for several species of whales and dolphins (Japan only) listed in Appendices I and II. Since these reservations

have been made by only 1 to 4 Parties for each of the species involved, it may be assumed that trade in these specimens is limited.

According to the IUCN, Parties use reservations to express their opinion that the species do not qualify biologically or legally for listing.[292]Overall, it seems that over the years the number of reservations with respect to important species has declined.[293] Some Parties, such as the USA, have not made any reservations.[294]

Many commentators consider the possibility for Parties to make these reservations as a major shortcoming of CITES.[295] Birnie, Boyle and Redgwell refer to the CITES reservation system as 'a fundamental weakness'.[296] On the other hand, it is stated by Sand, that 'threats to the effect that powerful members might reserve each time they were outvoted on a species did not materialize'.[297] He also notes that many of the early reservations have now been withdrawn due to external pressures.[298]

The shortcomings in relation to reservations have been acknowledged by the COP, which stated in one of its resolutions 'that the reservations made by importing countries allow loopholes through which specimens illegally acquired in the countries of origin can find legal markets without any control whatsoever'.[299] In 1983, the COP adopted a resolution requesting the Parties that have made a reservation with regard to a species in Appendix I, to treat that species as if it were listed in Appendix II and to maintain and communicate statistical records on its trade.[300]

ii. Derogations

Article VII of CITES deals with a list of derogations, which are referred to as 'exemptions and other special provisions relating to trade'. These concern the following specimens of listed species for which the provisions of the convention do not apply:

— specimens in transit or transhipped;[301]
— specimens acquired before the provisions of CITES applied to that specimen;[302]
— specimens that are personal or household effects;[303]
— specimens of an animal species included in Appendix I bred in captivity for commercial purposes;[304]
— specimens of a plant species included in Appendix I artificially propagated for commercial purposes;[305]
— specimens destined for scientific research;[306]
— specimens that form part of a travelling zoo, circus, menagerie, plant exhibition or other travelling exhibition.[307]

It appears that these provisions have been abused, especially by traders and tourists,[308] and the COP has developed several resolutions aimed at closing any gaps.

The abuses resulting from the transit and transhipment provision, which mainly concerned the keeping of specimens in the territory of a Party while seeking a buyer in another state, have been dealt with in Resolution Conf. 9.7 (Rev. CoP13).[309] The definition of 'transit or transhipped' has been narrowed and Parties have been requested to apply stricter controls. The 'difficulties' in relation to the so-called pre-convention species have been addressed in Resolution Conf. 13.6.[310] Special pre-convention certificates were introduced and recommendations were made in relation to applicable dates regarding the acquisition of specimens. The personal or household effects provision has been restricted by Resolution

Conf. 13.7,[311] which includes a definition of the term.[312] Resolution Conf. 11.15 (Rev. CoP12) deals with the scientific research provision and includes a recommendation to the Parties to register their scientific institutions.[313] Resolution 12.3 (Rev. CoP13) covers the travelling exhibitions provision and introduces a model travelling-exhibition certificate and recommends Parties to have these specimens marked.[314]

The CITES provisions concerning captive bred animals and artificially propagated plants deserve special attention. Article VII, paragraph 4 states that Appendix I specimens of animal species that are bred in captivity for commercial purposes and Appendix I specimens of plant species that are artificially propagated for commercial purposes shall be deemed to be specimens of species included in Appendix II. Furthermore, it is laid down in Article VII, paragraph 5 that 'where a Management Authority of the State of export is satisfied that any specimen of an animal species was bred in captivity or any specimen of a plant species was artificially propagated, or is a part of such an animal or plant or was derived therefrom, a certificate by that Management Authority to that effect shall be accepted in lieu of any of the permits or certificates required under the provisions of Article III, IV or V'. It soon became clear that further COP resolutions and decisions would be necessary to avoid abuse of these provisions. Resolutions Conf. 10.16 (Rev.),[315] and 12.10 (Rev. CoP14)[316] mainly deal with the specimens of animal species bred in captivity. The former resolution provides the necessary definitions, including a definition of the term 'bred in captivity',[317] the latter lays down the registration requirements for captive-breeding operations, the monitoring of their management and the use of marking systems for the specimens concerned. Resolutions Conf. 9.19 (Rev. CoP13),[318] and 11.11 (Rev. CoP14),[319] similarly cover artificially propagated specimens of plant species.[320]

In one of its reports on CITES the IUCN indicates that sixteen Appendix I animal species are bred in captivity, involving 59 captive breeding operations in fifteen different states that are Parties to CITES.[321] Examples of species bred in captivity are the Asian bony-tongue, the peregrine falcon, and the saltwater crocodile.[322] Appendix I plant species that are artificially propagated include species of the orchid family.[323]

The marking of specimens and the registration and monitoring of captive breeding and nursery operations appear to be crucial to avoid illegal trade in these Appendix I species. It has been stated by the IUCN that for some species it could be possible that captive breeding and artificial propagation may lead to a reduction in illegal trade.[324]

In relation to plant species the IUCN has remarked that Parties often do not record whether the specimens that are imported or exported have been collected from the wild or are artificially propagated.[325]

iii. Other Exceptions

Other exceptions have been introduced by the COP such as ranching, split-listing and annotation, which will be briefly discussed below.

The difference between captive breeding and ranching is that in case of the latter young animals or eggs of specimens are taken from the wild.[326] So far, this concerns only crocodilian species, of which the COP has stated that the 'controlled collection of eggs or hatchlings can be potentially a valuable and positive conservation tool'.[327] Certain populations of species that would be suitable for ranching and satisfy the criteria laid down in Resolution Conf. 11.6 could subsequently be moved from Appendix I to Appendix II. All

products resulting from these ranched species should be marked. The IUCN has remarked that the status of many of these species has improved in the wild and that many crocodilians are no longer considered threatened.[328]

The system of split-listing, which means that a species is listed in more than one Appendix,[329] is often used to make a distinction between national and regional populations. The best known example is the African elephant, which is listed in Appendix I, except for the populations of Botswana, Namibia, South Africa and Zimbabwe, which are included in Appendix II. The COP has declared that split-listing should be avoided, since it does create enforcement problems.[330] One commentator has stated that 'it creates an opportunity to launder products through the jurisdiction with the most lenient regulations'.[331] However, the practice of split-listing has become quite common.

An annotation is a note attached to a certain species in the Appendices to indicate which population, parts or derivatives are concerned by the listing or clarifying its scope or containing special conditions relating to the inclusion of the species.[332] In practice it means that although a species is listed in Appendix I, the commercial use of the specimens or specific parts of it is allowed under certain circumstances. An example concerns the trade in cloth and wool sheared from live vicuñas. This species used to be killed for its wool and became highly endangered as a result, but some of the range states introduced programmes for the vicuñas to be sheared alive.[333]

The final exception that will be discussed under this heading is of a completely different nature and concerns the possibility for Parties to adopt stricter domestic measures.[334] Many Parties have taken up this opportunity. Some Parties, such as Costa Rica and Paraguay, have introduced legislation that prohibits all international wildlife trade.[335] Others, like Ecuador and Nigeria, have banned all commercial exports of wild flora and fauna.[336] Australia has made the export of most of its live native wildlife species illegal.[337]

The EU, which introduced legislation to transpose CITES into EC law as external trade rules are exclusively within its competence, has implemented stricter trade controls than required by CITES.[338] This regulation offers a higher level of protection to listed species than CITES, especially to those species included in Appendix II of the convention.[339] Unlike CITES, the regulation requires import permits for these species. The EU Member States are allowed to introduce even stricter measures than those required by the EC Regulation (and the convention).[340]

In the USA, the Endangered Species Act (ESA) is applicable in relation to the trade in CITES species.[341] This act is also stricter than CITES and does not permit the trade in certain species that would be allowed under CITES.[342] The U.S. Pelly Amendment is also important in relation to CITES since it authorises the U.S. President to impose a trade embargo against a state of which the U.S. finds that their 'nationals are capturing or engaging in trade which diminishes the effectiveness of any international program for endangered or threatened species'.[343] It was a U.S. embargo based on this legislation that persuaded Japan in 1994 to remove its reservation on the highly endangered hawksbill turtle, included in CITES Appendix I.[344] The EC Regulation allows the EU to impose similar trade bans.[345] This possibility was for instance successfully used against Indonesia after it introduced 'voluntary' export quotas for some endangered species in 1994.[346]

There has been serious opposition against these 'stricter domestic measures' from several, mainly exporting, Parties. They claim that it may affect their economies, as well as the protected species (since less income could diminish funding for conservation programs) and runs counter to the spirit of CITES.[347] The only CITES resolution directly dealing with this

provision states that 'any difficulties that arise with respect to the adoption of stricter domestic measures can be resolved by mutual consultation and cooperation'.[348]

iv. Conclusion

The reservations, derogations and other exceptions discussed above complicate the CITES trade system and, with the obvious exception of 'stricter domestic measures', increase the possibilities of abuse. At the same time they also add some extra flexibility to the convention and meet the concerns of many Parties that are exporting developing countries.

In the early days of the convention many of these instruments were taken advantage of by Parties and (illegal) wildlife traders alike. For instance reservations were entered by Parties to show discontent with a COP decision transferring a species from Appendix II to Appendix I, while the exemptions laid down in the convention were used to circumvent the system.

The way in which the bodies of the convention, and the COP in particular, have been able to close various loopholes and put pressure on 'free rider' Parties to change their behaviour is laudable. The 'stricter domestic measures' that were introduced by many Parties have also assisted this process.

It seems that at this stage a balance has been found between use and control of these instruments, which ensures that no significant negative effect on the realisation of the CITES objectives is being caused. The contribution of this element to the effectiveness of the convention is therefore considered to be **satisfactory**.

2.7 Element 7: Monitoring

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).*

The functioning of the CITES trade system relies on (1) up-to-date information about the status of the species in need of protection, both listed in an appendix as well as unlisted, and (2) the monitoring of the legal and illegal wildlife trade in the specimens of these species. The convention deals with some of these issues. It requires the designation of a Scientific Authority by each Party and lays down its tasks.[349] It further arranges for the annual reporting by each Party on its trade in specimens of species included in the appendices.[350]

These provisions have been further developed by the COP and various resolutions have been adopted to improve the scientific basis of the convention. To be able to decide which species should be listed in one of the appendices, biological and trade criteria have been specified. The latest resolution dealing with this subject is Resolution Conf. 9.24 (Rev. CoP14), adopted in 1994 in Fort Lauderdale, Florida. The criteria that were then agreed upon (with some modifications made at later COP meetings) are generally referred to as the Fort Lauderdale criteria. The biological criteria for Appendix I species (species threatened with extinction) have been laid down in Annex 1 and include criteria in relation to decline in population size, area of distribution, and area and quality of habitat. If a species meets at least one of these criteria it is considered to be threatened with extinction.[351] Definitions and explanations of relevant terminology have been laid down in Annex 5 of the resolution. 'Decline' has been described as 'a reduction in the abundance, or area of distribution, or area of habitat of a species'.[352] The following general guideline for the term 'decline' in

relation to a species is given: 'a percentage decline to 5%-30% of the baseline, depending on the biology and productivity of the species'.[353]

Two criteria have been developed for the inclusion of species in Appendix II:

— regulation of trade in the species is necessary to avoid it becoming eligible for inclusion in Appendix I in the near future;[354]
— regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.[355]

The application of the criteria for the Appendix I and II species can be based on observation, inference or projection.[356] Obviously, the latter two are less precise.[357]

Some commentators have indicated that relevant biological data about many of the species are still not available.[358] The IUCN remarks in its CITES effectiveness study that 'even attempting to assess the change in status of many species has proven very difficult', and that 'there are relative few species for which extensive and systematic numerical counts are available'.[359] Nevertheless, it is the IUCN that has built up the most reliable database of threatened species and it can be safely assumed that the situation would have been even more critical without this organisation contributing its expertise. Another issue concerns the quantitative benchmarks that are now included in the Fort Lauderdale criteria.[360] Although the addition of these benchmarks seems to have strengthened the scientific basis of the criteria, it has been argued that these benchmarks are not suitable for many species.[361]

At an early stage, the COP recognised that a periodic review of the appendices would be essential.[362] In Resolution Conf. 9.24 (Rev. CoP14) it is stated that 'to monitor the effectiveness of the protection offered by the Convention, the status of species included in Appendices I and II should be regularly reviewed by the range States and proponents, in collaboration with the Animals or the Plants Committee, subject to the availability of funds'.[363] Resolution Conf. 14.8 is the latest resolution dealing with the periodic review of the appendices and it shows that the COP is taking the lead on this issue. The resolution instructs the Animals and Plants Committees to prepare a schedule for the periodic review of the appendices and a list of taxa for evaluation.[364] It also sets clear time tables. The Animals and Plants Committees are responsible for carrying out the reviews, but are supposed to cooperate with the range states.[365] This process may lead to COP decisions regarding the transfer of species from one appendix to the other or the deletion of species from the appendices.[366] However, it appears from the summary of the Animals and Plants Committee meetings in April 2008 that the cooperation of many Parties in carrying out these reviews is limited and that funds are often not available.[367] The Plants Committee faces the additional problem of a lack of experts for a number of species.[368]

The monitoring of the trade in wildlife is another important element of the CITES trade system. The Scientific Authorities that have been set up in almost all states that are Party to CITES play a crucial role in this respect. In relation to Appendix I specimens the Scientific Authorities of both the exporting as well as the importing Party have to advise whether or not the export/import will be detrimental to the survival of the species.[369] For Appendix II species, it is only the Scientific Authority of the exporting state that should advise on this matter,[370] although many Parties have adopted a stricter regime.[371] The conclusions of the Scientific Authority are commonly referred to as the 'non-detriment findings'.

Furthermore, the Scientific Authorities of the exporting states are also supposed to monitor the export permits granted for specimens of species in Appendix II as well as the actual export of these specimens. The convention requires that a species listed in this appendix is maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs. The Scientific Authority should, when necessary, advise its Management Authority on measures to be taken to limit the granting of export permits for specimens of that species.[372] This activity is referred to as the 'significant trade review'.

Another trade related requirement is the annual reporting by each Party to the Secretariat. These reports should contain records of trade in specimens of species included in the appendices.[373] In these reports the following information should be included: (1) the names and addresses of exporters and importers, (2) the number and type of permits and certificates granted, (3) the states with which such trade occurred, (4) the numbers or quantities and types of specimens, (5) the names of species as included in the appendices, and (6), where applicable, the size and sex of the specimens in question.[374]

Over the years, the COP has further elaborated upon these trade related instruments (the non-detriment findings, the significant trade review and the annual reporting).

It appears that the foundations of the non-detriment findings by the Scientific Authorities can be problematic. The IUCN states that 'many countries lack the necessary scientific data on the status of their animal and plant populations, which makes it difficult to calculate how the population is affected by different levels of exploitation'.[375]

One of the objectives of the CITES Strategic Vision 2008-2013 is that the 'best available scientific information is the basis for non-detriment findings'.[376] A similar objective could be found in the previous CITES Strategic Vision.[377] In relation to the latest strategic vision the IUCN, TRAFFIC and the WWF remark that findings from the Scientific Authorities should be based on science and that 'in many cases, particularly for heavily traded species, this is not necessarily the case'.[378]

In relation to Appendix II species the COP has adopted a resolution dealing with the non-detriment findings as well as the significant trade review.[379] In this resolution the COP expresses its concerns that some states are not effectively implementing Article IV, paragraphs 2(a), 3 and 6 (a) and remarks that 'in such cases, measures necessary to ensure that the export of an Appendix II species takes place at a level that will not be detrimental to the survival of that species, such as population assessments and monitoring programmes, are not being undertaken, and that information on the biological status of many species is frequently not available'.[380]

The problems in relation to the significant trade review requirement were already signalled in 1981 when at COP3 Australia stated that 'the Convention is simply documenting the decline of Appendix II species in spite of the fact that Article IV, paragraph 3, of the Convention should prevent any decline once a species is listed in Appendix II'.[381] A response by the COP to this criticism followed in the form of several successively introduced significant trade reviews to improve this situation.[382] As is the case with the periodic review, the Animals and Plants Committees, in concert with the Secretariat and several experts, now play a significant role in carrying out these reviews. Resolution Conf. 12.8 (Rev. CoP13) lays down the current updated procedure.[383] An important part of this procedure is shaped by the recommendations from the Animals and Plants Committee and the Secretariat in relation to species that need urgent attention.[384] The substance of these recommendations varies from export quotas and temporary restrictions on exports,[385] to taxon and country specific status assessments and field studies.[386] Parties that do not implement these

recommendations may become the subject of sanctions, including the suspension of trade in the species concerned.[387] The IUCN indicated in 2000 that the significant trade review mechanism had until then involved 111 species and higher taxa, mainly birds and mammals (at the expense of other groups such as amphibians, insects and fish) and that in 1997 138 recommendations had been issued, which were largely implemented by the 45 range states involved.[388] An evaluation of the significant trade review requirement has been planned by the Animals and Plants Committees in cooperation with the Secretariat, but it is uncertain when this will be completed.[389]

The annual reporting requirement has also been the subject of several resolutions over the years. In the latest of those the COP emphasises the importance of the annual report as being the 'only available means' in relation to the monitoring of international trade in specimens of species included in the Appendices.[390] Initially, many Parties did not submit their annual reports or did not submit them on time. The IUCN stated that several major exporters did not return their annual reports during certain periods between 1975-1995, leaving gaps and omissions in the information.[391] However, in recent years this situation has improved.[392] Nevertheless, it appears from the Secretariat's overview that there is still a considerable number of Parties that have not submitted their annual reports on time.[393] The Secretariat scrutinises the reports and the UNEP World Conservation Monitoring Centre is maintaining a database in which all information is stored.[394]

The 'guidelines for the preparation and submission of CITES annual reports' have been developed to ensure that the information is as comprehensive as possible. The reports are crucial, for instance, for comparative trade analyses, reviews of significant trade and management of quotas.[395] It has come to light that the trade related information in these reports is far from reliable. The IUCN reported already in 2000 that 'only a small percentage of transactions show perfect correlation between the Annual Reports of exporting and importing Parties'.[396] In 2005, the results of a much more detailed study became available. The WWF and Conservation International studied the wildlife trade figures of the United States for about 2,000 CITES species,[397] by comparing the information recorded by CITES and U.S. Customs for the period 1997-2002.[398] Although the figures for exports and imports of certain species should have been identical, they differed substantially. For instance, the CITES reported volume of coral trade in 2000 with the U.S. was 376% greater than the volume reported by the U.S. Customs, while the U.S. Customs reported volume of conch trade in 2000 was 5,202% greater than that reported by CITES.[399] The main factors contributing to these discrepancies appear to be smuggling and recording errors.[400]

For an overall picture of the magnitude of the trade in each CITES species, it is essential to approximate the volumes of illegal trade in CITES species.[401] It appears that Parties are often reluctant to share their knowledge of illegal trade with the Secretariat,[402] TRAFFIC, however, focuses on this type of trade by collecting information on CITES infringements by wildlife traders and smugglers.[403] In some cases the illegal trade in the specimens of a species could even exceed the legal trade.[404] However, the estimated volume of illegal trade is not always included in the significant trade review process, which may distort the figures.[405]

Special monitoring tools can be established by the COP to control the trade in specimens of specific species. The listed species that has probably received most attention in this respect is the African elephant. Because the ivory trade threatened its survival, the African elephant was transferred from Appendix II to Appendix I in 1989. After intensive lobbying, three African Parties managed to list this species again in Appendix II in 1997, but only for

these countries and subject to the exercise of strict controls.[406] To closely monitor the conservation status of the African elephant, two new systems, MIKE (Monitoring the Illegal Killing of Elephants) and ETIS (Elephant Trade Information System) were introduced. Both systems have been established under the supervision of the Standing Committee, while the Secretariat and TRAFFIC play an important role in their management.[407] The fact that the elephant has been one of the so-called flagship species of the convention, receiving much attention from the media and the public, has contributed to instigating the development of these tools. Some commentators argue that the costs involved with these programmes are disproportionate, since the monitoring of most other species hardly receives any funding at all.[408]

Conclusion

The convention already acknowledged the importance of proper monitoring of the trade in specimens of CITES species, and the relevant provisions laid the foundation for the creation of the Scientific Authorities as well as various trade monitoring instruments. These have been further developed by the COP and new initiatives, such as the periodic review of the appendices, have been adopted as well. For the monitoring of the status of the species in need of protection as well as the international trade in specimens of CITES species the following instruments are now available: the Fort Lauderdale criteria, the periodic review of the appendices, the so-called non-detriment findings, the so-called significant trade review and the annual reporting. A very important role in the identification and reporting of illegal trade in specimens of CITES species is played by TRAFFIC. All these instruments seem to be well selected, but their implementation has by no means been an unqualified success. Biological data for many of the CITES species are lacking, funding for the periodic review of the appendices is insufficient, the reliability of the non-detriment findings issued by the Scientific Authorities is in many cases doubtful, the significant trade reviews are carried out by the Animals and Plants Committees instead of by the Parties as originally intended, while at the same time the Parties' cooperation is often minimal, the annual reporting by the Parties is frequently delayed and the information often incorrect. Finally, Parties seem reluctant to report any information in relation to illegal trade in specimens of CITES species to the Secretariat.

In conclusion it could be stated that while the CITES bodies have taken a pro-active approach in relation to the development and implementation of the monitoring instruments, many Parties have not accorded this the appropriate priority. The contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.8 Element 8: Communication, Education and Public Awareness

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.*

Public awareness and support have not received much attention in the convention. The only mention of the public in the text is in relation to the periodic reports that have to be prepared by the Parties.[409] This information has to be made available to the public, 'where this is not inconsistent with the law of the Party concerned'.[410]

Although one of the objectives in the Strategic Vision 2008-2013 is to increase the awareness of the role and purpose of CITES globally,[411] no communication, education and public awareness (CEPA) programme has been developed. The Strategic Plan Working Group did propose to include the development of a communication strategy as one of the indicators for the assessment of this objective.[412] However, this proposal was not adopted by the Standing Committee. The following indicators did get approved: (1) the number of Parties that have been involved in CITES awareness raising campaigns to bring about better accessibility to and understanding by the wider public of the Convention's requirements, (2) the number of Parties that have undertaken market surveys indicating the public's understanding of the role and purpose of CITES, (3) the number of visits on the Secretariat's website, and (4) the number of Parties with web pages on CITES and its requirements.[413] Benchmarks related to these indicators are lacking. The development by the Parties of national CEPA programmes has not been included as an indicator.

The environmental NGOs that are most closely associated with the bodies of CITES, the IUCN and the WWF, have both underlined the importance of public awareness and education in relation to the international wildlife trade. The IUCN concludes in one of its reports on CITES that 'the most efficient way to address illegal trade may very well be a combination of enforcement and public education', and that 'the CITES approach does not usually address the demand for the good'.[414] The WWF states that 'one of the most powerful tools of all for addressing illegal and unsustainable wildlife trade is to persuade consumers to make informed choices when buying wildlife-based products. This includes not just the people buying the end product, but also shopkeepers, suppliers, and manufacturers'.[415]

In 1998, the WWF and TRAFFIC published the results of a survey carried out to study the attitudes of the population of Hong Kong towards traditional Chinese medicine. It appeared that awareness about the ingredients amongst the users of this medicine (6,8% of the Hong Kong adult population uses it regularly) is low. However, a large percentage of the respondents indicated that they would be prepared to give up certain traditional Chinese medicine if that would help save wildlife from extinction.[416]

Public awareness as a means to combat illegal wildlife trade has been successfully deployed by environmental NGOs on various occasions. The approach chosen by a group of NGOs from the UK in 1992[417] is a case in point. To counter the illegal wildlife trade in Taiwan that continued without any government action for many years and included the sale of large quantities of rhino horn,[418] they launched a campaign revealing illegal activities in a shocking video and requesting the public to boycott Taiwanese products. Subsequently, the campaign was taken to Taiwan and generated massive interest from the national press. The Taiwanese government initially reacted angrily to the campaign, even threatening legal action, but later decided to address the problem instead. An additional trade ban of wildlife specimens by the U.S. against Taiwan in 1994 further increased the pressure on the government to act. The ban could finally be lifted in 1997.[419] Another example concerns the illegal trade in spotted cats for the fur trade. NGOs from importing states launched advertising campaigns focusing on the negative effect of trade on the conservation of the species. Public demand was successfully persuaded to switch to synthetic alternatives.[420]

Some individual state Parties have taken measures to create greater public awareness. These measures are usually general in nature and consist of the use of leaflets and posters (mostly at airports) as well as government-sponsored websites to explain CITES.[421] In some cases special information is prepared for wildlife traders, which can be useful since their knowledge of CITES is often limited.[422]

Most commentators would agree that changing consumer behaviour is an important component of any successful approach to counter the illegal and unsustainable wildlife trade. Sand states that behavioural changes in wildlife-consuming countries are required, especially as regards to tourists,[423] and Cooney notes that 'bans may be best backed up by attempts to decrease demand'.[424]

It is not clear why there has never been any initiative under CITES to develop a CEPA programme. However, the Secretary General of CITES has indicated that due to the many exemptions 'even people who work on a daily basis with CITES sometimes get confused' and that 'brochures with information for the general public can never explain the totality of the Convention', and 'make things sometimes even more confusing'.[425]

The CITES website plays a central role in providing public access to all relevant CITES information.[426] The site was launched in 1997 and the CITES Information Management Strategy was developed to enhance its further implementation.[427] Most CITES documents are available on the site, which has contributed to the transparency of the convention.[428] The biennial reports of the Parties are, if submitted, also made available on the website. The trade data reported by the Parties in their annual reports are maintained in a database by UNEP-WCMC, which can also be accessed.[429] However, the reports themselves are not publicly available.

To further the understanding of CITES, Willem Wijnstekers, Secretary General of CITES until 2010, has published *The Evolution of CITES,* which provides an overview of the provisions, resolutions and decisions, as well as useful explanations and comments. The 8th edition of this publication has been issued in 2005 and is freely available in electronic form.

Some sources of information have, however, been discontinued. Up to 2000, the Secretariat prepared the so-called infractions reports, which were highly regarded by commentators.[430] These provided, in some detail, information about illegal trade commonly committed by individuals as well as non-compliance by Parties.[431] Sand states about these reports: 'paradoxically, frequent news reports about CITES infringements [ ] turned out to be the most effective way of raising public awareness and acceptance of the treaty, thus strengthening the legitimacy of the regime'.[432] However, these reports made some Parties feel very uncomfortable, and have now been replaced by a new format containing less specific and detailed information.[433] When the Secretariat announced these changes it declared that it 'is aware that a significant number of Parties view the reporting of incidents of wildlife crime/illicit trade as, potentially, providing a negative view of their State'.[434]

The introduction of the option of secret balloting in the rules of procedure has also affected another source of information: namely the possibility to gain an insight into the functioning and the decision-making by the COP.[435] Secret voting on controversial amendment proposals at COP meetings has now become the norm, which means that Parties can easily disregard scientific arguments without being held to account.[436]

Finally, the CITES newsletter, *CITES World* was not published during a three year period (2006-2009), but reappeared in 2009.[437]

Conclusion

The trade in wildlife has, just as all other forms of trade, both a supply and a demand side. It is clear that CITES is almost exclusively focused on the supply side. However, this type of trade is ultimately driven by consumer demand, predominantly from developed countries. As a consequence, the creation of public awareness and support and the promotion of education on this subject could fundamentally strengthen the fight against illegal wildlife trade. So far, the COP has made little efforts in this area, whereas some environmental NGOs have shown that targeted campaigns can be very successful.

Creating public awareness to combat illegal wildlife trade should have been an important part of a CITES CEPA programme, but it is obvious from the documents in relation to the preparation of the Strategic Vision 2008-2013 and its indicators that Parties do not support such a programme. The indicators that have been developed to assess the objective to 'increase awareness of the role and purpose of CITES globally' seem to lack ambition, a point reinforced by the absence of any benchmark. The development of national CEPA programmes has not been on the CITES agenda. It is somewhat surprising that the environmental NGOs close to CITES, such as the WWF and the IUCN, have not been more vocal on these points.

The development of the CITES website and the publication of *The Evolution of CITES* have widened the public's access to CITES information. However, the loss of relevance of the contents of the infraction reports and the introduction of secret balloting, convey the impression that critical reviews are not appreciated, and must be seen as retrograde steps.

This leads to the conclusion that the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.9 Element 9: Incentives

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.*

i. The Economic Incentive

This incentive is very specific to CITES. Nowadays, states that seek to participate in the international trade in wildlife and wildlife products have little choice but to join CITES.[438] The role of the USA has been important in this respect. CITES has reached almost universal membership as a result of active policing by the USA. States that initially appeared reluctant to join, such as Singapore, felt compelled to do so after the USA banned imports of their wildlife,[439] and although its status prevented it from joining CITES, even Taiwan had to adopt legislation similar to CITES and actively enforce it to be able to get a U.S. trade ban lifted.[440]

The importance of this trade to many CITES Parties is shown by TRAFFIC in an overview indicating the vast volumes of wildlife trade in various categories as well as the substantial diversity of plant and animal species involved.[441] The value of legal trade in wildlife products in the EU in 2005 amounted to EUR 93 billion, and EUR 2.5 billion when timber and fisheries are excluded.[442] Many developing countries, such as Madagascar, Nicaragua, Uganda and

Viet Nam,[443] export large volumes of specimens of CITES species, and this trade is a significant source of income to them.

ii. The Financial Resources Incentive

Whereas international trade in specimens of CITES species is very important to many Parties, especially to those that are developing countries, joining CITES is a rather costly affair.[444] It involves the initial costs of developing national legislation, setting up Management and Scientific Authorities, and training staff. The ongoing costs include the monitoring of species and trade, the continued training of staff, the preparation of reports and the enforcement of the national legislation. The convention itself is silent on this issue, and the COP has not addressed it either.[445]

As indicated earlier in this chapter, the current level of funding available through the CITES Trust Fund hardly covers the basic costs of running the convention itself,[446] and there is very little additional funding available for financial assistance to the Parties that are developing countries. Unfortunately, CITES is not one of the conventions that have access to GEF funds,[447] and largely depends on bilateral and multilateral funding, usually amounting to about USD 1 million per year.[448] Besides the donations of a limited number of states,[449] and the European Union, relatively small amounts are also contributed by some environmental NGOs and the private sector.[450] Most of these funds are ad hoc in nature.[451]

One of the three goals laid down in the Strategic Vision 2008-2013 is to 'secure the necessary financial resources and means for the operation and implementation of the convention'.[452] The objectives defined for this goal suggest that these resources should be secured 'at the national/international levels'.[453] The special indicators that were subsequently developed[454] show that the focus is on 'the national level' and that no benchmarks have been set to value the outcome of these indicators.[455]

In relation to the financial position of CITES, Reeve has stated that 'while providing more "carrots" to balance the "sticks" would undoubtedly improve compliance, this demands more funds, which, given the extent of non-payment of contributions and the reluctance of parties to increase them, is unrealistic. If parties want incentives and assistance, they will inevitably have to pay'.[456]

iii. The International Assistance Incentive

International assistance is offered in the form of capacity building, enforcement assistance and technical assistance. Since the working of CITES is quite complicated, capacity building is essential for all staff involved in the implementation of CITES, such as those working for Management Authorities, Scientific Authorities, customs authorities and other enforcement agencies as well as the judiciary.

From the outset, the Secretariat has been active in this area by providing training workshops and various courses, many available on CD-ROM, and by preparing tools, often in multiple languages, such as the CITES Handbook, the Checklist of CITES species, the CITES Identification Manual and several reference guides.[457] Memoranda of Understanding (MOUs) have been signed with a number of institutions, such as TRAFFIC, the University of Kent, UK, and the Royal Botanic Gardens in Kew, UK, to assist with these tasks.[458] In one of these MOUs it is stated that the demand by the Parties for assistance with capacity building is greatly outweighing the available resources.[459]

Some specific training programmes that have been developed are the legal capacity building programme, which focuses on the training of national experts to develop laws for their own countries,[460] the special workshops for the Scientific Authorities on the 'non-detriment findings',[461] and the regional train-the-trainer workshops, supported by Interpol, on environmental criminal investigations for law enforcement officers.[462]

In 1989, the Secretariat and the WWF initiated an Enforcement Project with the purpose 'to assist the parties in both preventative and reactive CITES enforcement activities'.[463] In 1994, the project was approved and Parties were requested to provide the necessary funding for the appointment of extra officers. Although several activities have been undertaken, mainly in the area of enforcement training and technical assistance, there is currently only one enforcement officer active[464] and the intended assistance in the development and implementation of regional law enforcement agreements has not materialised.[465]

Some forms of technical assistance have been made available. One example is the support offered to Parties with the drafting of the annual reports.[466] An Identification Manual has been prepared to help Parties with the identification of specimens of listed species. Although already in 1981 a resolution was adopted requesting donor Parties to include technical assistance in their bilateral and multilateral programmes of development aid,[467] funding of this type of assistance remains problematic as well.[468]

iv. The Cooperation Incentive

The possibility of cooperation between the Parties, especially in relation to the enforcement of CITES, is a positive incentive since, among other advantages, the costs involved with the implementation and enforcement of CITES can be reduced by working together. In 1994, the Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in wild Fauna and Flora (the Lusaka Agreement) was adopted for the African region. It entered into force in 1996 with the objective of enforcing CITES in Africa.[469] UNEP has coordinated this development and now serves as the interim secretariat for this agreement. So far only six African states have ratified the agreement.[470]

A similar initiative is the North American Wildlife Enforcement Group (NAWEG), which is a regional network of senior wildlife law enforcement officials of Canada, Mexico and the United States.[471] NAWEG was launched in 1994 and focuses on the improvement of the North American capacity to enforce laws regulating the sustainable use and conservation of wildlife, particularly with respect to CITES.[472]

The EU Member States are also cooperating closely on the implementation and enforcement of CITES. Under Council Regulation (EC) No. 338/97 three institutions were created, the Committee on Trade in Wild Fauna and Flora, the Scientific Review Group and the Enforcement Group.[473] Each institution is chaired by a representative of the European Commission, and representatives of the Member States are participating in all three of them.[474]

Another regional initiative has been laid down in the so-called Quito Declaration, which concerns the region of Central and South America and the Caribbean. The intention stated in this document is to share scientific information in relation to CITES, to promote capacity-building programmes and to create a regional fund.[475] Three Parties have signed the declaration: Argentina, Panama and Ecuador.

v. Conclusion

The costs of implementing and enforcing CITES are substantial, and it is unfortunate that there has been insufficient funding to support the Parties that are developing countries with this.

The international assistance that has been mobilised in spite of funding difficulties is impressive and is largely attributable to the efforts of the Secretariat and NGOs such as the IUCN, the WWF and TRAFFIC. However, demand for this type of assistance exceeds availability. Cooperation between Parties has been initiated in several regions, but in terms of practical benefits this incentive still seems somewhat underdeveloped.

It is not surprising that for most states the economic incentive is by far the most compelling one to join and participate in CITES.

Taking all these aspects into account, especially the lack of a meaningful financial incentive, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.10 Element 10: Compliance and Enforcement

Benchmark I: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.*

Benchmark II: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

Three elements are most important in relation to compliance and enforcement: (1) the compliance with and enforcement of CITES at the national, and in case of the EU, regional level, (2) the supervisory measures that CITES has available, and (3) the supervision of compliance and enforcement by the Secretariat.[476] Any international dispute settlement procedures that might be available under CITES will be looked at in this sub-section as well, but are not included in the final assessment.

i. Compliance and Enforcement of CITES at the National (and Regional) Level

Several provisions of the convention are compliance related, such as the requirement that Parties should take appropriate measures to enforce the provisions of the convention and to prohibit trade in specimens in violation thereof. The latter should be penalised and the specimens concerned confiscated or returned to the exporting state.[477] The Parties should also maintain trade records of CITES specimens and transmit annual and biennial reports to

the Secretariat.[478] Furthermore, the Secretariat and the Parties concerned must take action if any species included in Appendices I or II is being adversely affected.[479]

In Resolution Conf. 11.3 (Rev. CoP14), the COP has laid down the major problems that Parties are facing in relation to compliance and enforcement as well as a list of possible solutions.[480] It is indicated in this resolution that developing countries have 'major difficulties' in meeting appropriate control requirements, and that 'all producer countries' are facing 'extreme difficulties' in implementing their own CITES controls.[481] As discussed in sub-section 2.5, more than 50% of the Parties have not implemented sufficient legislation to meet the most important CITES requirements and as a consequence it will be practically impossible for those Parties to fully comply with the convention.

Combating the trade in wild fauna and flora in violation of the provisions of the convention is the most prominent compliance and enforcement aspect of CITES. The offenders vary from tourists, unaware of the illegality of their activities, to cross-border criminal syndicates, often counting on the collaboration of corrupt officials. The Secretariat has warned that the involvement of organised crime and organised criminal networks is growing, that this makes combating illegal wildlife trade very difficult and that 'there is little evidence that illegal trade is likely to reduce in the near future'.[482] The Secretariat as well as a special CITES Enforcement Expert Group identified the following shortcomings in relation to the Parties' compliance and enforcement activities:

A major shortcoming is the fact that most Parties accord a very low priority to the fight against illegal trade in wildlife.[483] It is stated by the CITES Enforcement Expert Group that 'the available resources for enforcement are negligible when compared to the profits gained from such trafficking',[484] and the Secretariat notes in 2007 in its document on enforcement matters that 'a major hurdle to improvement in enforcement continues to be the fact that in relatively few countries are offences against wildlife legislation seen to be part of serious, high value, 'mainstream' crime and, therefore, the enforcement resources (human, technological or forensic science assistance) are either absent or difficult to access'.[485] McOmber claims in relation to the enforcement of CITES 'that even in the U.S. the enforcement mechanisms are lacking'.[486] As a consequence, criminal organisations are increasingly attracted to this type of crime because of the high profits and minimal risks.[487]

The lack of priority given to confronting the illegal wildlife trade also manifests itself in other ways. It has for instance been pointed out by the CITES Enforcement Expert Group that the Management Authorities in many CITES countries are under resourced and do not have sufficient experience,[488] that officials are often corrupt,[489] and that false and invalid permits and certificates are increasingly used.[490]

Other sources indicate that agreed quotas are regularly exceeded,[491] and that in some instances export volumes are higher than indicated in the annual reports.[492]

The lack of cooperation between Parties on the one hand, and CITES authorities, enforcement agencies, such as ICPO-Interpol, NGOs and other Parties on the other is a further serious issue that has been described frequently.[493] Parties are supposed for instance to report illegal wildlife trade to the Secretariat and may use standardised formats for this purpose, such as the so-called Ecomessage developed by ICPO-Interpol.[494] More recently the Trade Infraction and Global Enforcement Recording System (TIGERS) has been created, a computerised system to process reports of wildlife crime and illicit trade from a variety of sources.[495] Parties can also give details of illegal wildlife trade directly to the World Customs Organisation and ICPO-Interpol.[496] However, Parties still appear disinclined to report this information.[497] One of the conclusions of the CITES Enforcement Expert

Group is that 'insufficient information regarding illegal trade is being exchanged at national, regional and international levels'.[498] Worries about the possibility of negative publicity seem to be the main cause of this reluctance.[499] Despite the various regional initiatives such as the EU's Enforcement Group, the Lusaka Agreement, the Quito Declaration and the North American Wildlife Enforcement Group (NAWEG),[500] cooperation between the Parties to address illegal wildlife crime is not yet well established either.

As already discussed in sub-section 2.5, the penalties for violations of the convention are usually insufficient as a deterrent and criminal sanctions are often not available. Even if significant penalties are provided by the national legislation, serious criminal cases often result in rather lenient sentences, mostly not more than fines.[501] A recent study carried out for the EU on the enforcement of the EU Wildlife Trade Regulations confirms that the maximum sentences set by law for violations of these regulations are hardly ever applied.[502] In the same report it is further stated that officials in several Member States consider the awareness amongst prosecutors and judges of the CITES regulations to be inadequate.[503]

Nevertheless, some CITES Parties have imposed severe sentences. In China several individuals have been sentenced to death (and were executed) for violating wildlife trade legislation,[504] and in Ghana serious prison sentences were imposed for similar offences.[505] In the Czech Republic, a reptiles smuggler was sentenced to three years in prison in 2004, and in the UK, an Asian slipper orchids smuggler was imprisoned in 2006.[506] All these cases concerned the trade in Appendix I species.

It is generally accepted that CITES is a non-self-executing treaty.[507] Attempts to claim the direct application of the treaty, usually to avoid stricter domestic legislation, have failed before the courts in various states and before the European Court of Justice, which have ruled that these stricter domestic measures do not violate CITES.[508]

One case judged by the European Court of Justice (ECJ) is of special interest since it clarifies the position of the Scientific Authorities within the EU. The EU has introduced EC regulations to implement CITES in the EU Member States.[509] As a consequence, the European Commission is empowered to bring procedures against Member States for non-compliance with the regulations. These procedures may end up before the ECJ.[510] That is what happened in Case C – 182/89 *Commission v France* in which the Commission accused France of failing its obligations under the regulation.[511] This case was based on Council Regulation 3626/82, which preceded Council Regulation 338/97. France had issued import permits for more than 6,000 skins of the wild cats *Felis geoffroyi* and *Felis wiedii* from Bolivia, although the Commission had informed the Member States not to issue any import permits for Bolivian specimens. The ECJ decided that France could not reasonably have reached the conclusion that the capture of the wild cats in question would not have a harmful effect on their conservation or on the extent of the territory occupied by the population in question. The favourable opinion of the French Scientific Authority was on its own not sufficient to satisfy the requirements under the regulation and could only be seen as 'one factor to be taken into consideration among others'. Consequently, the ECJ held that the French Republic failed to fulfil its obligations under Article 10 (1)(b) of Council Regulation (EEC) No 3626/82 of 3 December 1982 on the implementation in the Community of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and ordered France to pay the costs.

ii. Supervisory Measures regarding CITES at the International Level

The convention includes two forms of supervision, the periodic reporting,[512] and the Article XIII procedure requiring the Secretariat to take action towards the Party or Parties concerned if any species included in Appendices I or II is being adversely affected by trade in specimens of that species or if the provisions of the convention are not being effectively implemented.[513]

All Parties have to prepare periodic reports on their implementation of the convention. Annually, each Party has to report the names and addresses of exporters and importers, the number and type of permits and certificates granted, the states with which such trade occurred, the numbers or quantities and types of specimens, the names of species as included in the appendices and, where applicable, the size and sex of the specimens in question.[514] As discussed in sub-section 2.7 of this chapter, many Parties do not submit their annual report on time. By June 2010, 16% of the Parties had not submitted their 2007 annual report and 34% still had to present their 2008 annual report.[515] Furthermore, the trade related contents of these reports are unreliable.[516] It has been decided that Parties that have failed to submit their annual reports for three consecutive years without adequate justification will face trade sanctions.[517] Currently, one Party, Somalia, is subject to a recommendation to suspend trade for this reason.[518]

Biennial reports should be submitted on the legislative, regulatory and administrative measures that Parties have taken to enforce the provisions of the convention.[519] A comprehensive standard format has been developed and the submission date for this report is 31 October of the year following the year for which the report is due.[520] It appears that for the 2003-2004 period 92 Parties (52%) have submitted their reports, for the 2005-2006 period 70 Parties (40%) and for the 2007-2008 period 55 Parties (31%).[521]

Sand has referred to the Article XIII procedure as 'the only leverage for *external* compliance control',[522] and the Secretariat has used this provision to actively supervise the Parties' implementation of and compliance with the convention. In Resolution Conf. 11.3 (Rev. CoP14) on compliance and enforcement the application of Article XIII has been further developed and the procedure is now as follows:

When an alleged infraction is suspected, the Secretariat requests the Party concerned to provide it with information. A reply should be send within a month, but when this is not possible, an acknowledgement should be send indicating when the requested information will be submitted. When the information is not made available within a one year time-limit, a justification should be provided.

If major problems occur, the Secretariat will offer advice or technical assistance to a Party. If this does not solve the difficulties, the Secretariat will bring the matter to the attention of the Standing Committee, which may contact the Party concerned with the intention to find a solution.

The Secretariat keeps the other Parties informed through Notifications, and includes the case in its report of alleged infractions.[523]

As these reports have often resulted in negative publicity, it is especially the reporting part of the procedure that has made Parties comply.[524] Other reports that are prepared by the Secretariat, such as those on the National Legislation Project,[525] the Significant Trade Review requirement,[526] and on annual reporting, can have a similar effect.

A supervisory measure that does not find its basis in the convention is the so-called fact-finding or verification mission, which usually takes place when a Party faces compliance

difficulties. These missions are carried out by the Secretariat with the consent of the Party concerned. Their purpose may vary from gathering information, discussing problems, giving advice and technical assistance, assessing problems in relation to poaching and trade in specific CITES species, to evaluating whether or not conditions for the lifting of trade sanctions have been implemented.[527]

The imposition of trade sanctions has also been introduced at a later stage and could be described as the most stringent supervisory measure available under CITES. The so-called 'recommendation to suspend trade' can be decided by the COP or the Standing Committee and has been frequently applied. Article XIV of the convention, which allows Parties to adopt stricter domestic measures, forms the legal basis for this measure, although for this purpose the provision is applied collectively and the measure is of a temporary nature.[528] Such a recommendation is usually the ultimate consequence of a Party's inaction in combating illegal trade (also applicable to non-Parties), inadequate implementation of CITES legislation, non-submittal of annual reports, or failure to implement recommendations in relation to the Significant Trade Review mechanism. The recommendation to suspend trade may concern one or more specific CITES species or all commercial wildlife trade and is withdrawn immediately upon return to compliance.[529]

This measure was first used in 1985 and until 2002 15 Parties and non-Parties were subjected to trade suspensions. Its application has been on the increase in recent times; in June 2010 recommendations to suspend trade were in force in relation to 23 Parties.[530] Although there is general agreement that these recommendations can be very effective,[531] it is largely unclear how many Parties participate in these trade bans, which are based on mere recommendations and thus not mandatory. However, the imposition of a trade ban by one big importer such as the USA or the European Union is usually sufficient to bring a Party (or non-Party) back in line.[532]

At the COP14 meeting in 2007, the COP adopted the Guide to CITES compliance procedures.[533] The stated objective of the guide is 'to inform Parties and others of CITES procedures concerning promoting, facilitating and achieving compliance with obligations under the Convention and, in particular, assisting Parties in meeting their obligations regarding such compliance'.[534] The supervisory measures discussed above are included in the guide. In relation to the recommendation to suspend trade the guide states that 'such a recommendation may be made in cases where a Party's compliance matter is unresolved and persistent and the Party is showing no intention to achieve compliance or a State not a Party is not issuing the documentation referred to in Article X of the Convention'.[535]

More specific enforcement monitoring mechanisms have been introduced by the COP, such as Monitoring the Illegal Killing of Elephants (MIKE), the Elephant Trade Information System (ETIS) and CITES Tiger Enforcement Task Force (TETF). MIKE and ETIS focus on the prevention of illegal activities in relation to elephants and are supervised by the Standing Committee, while the Secretariat has established an independent Technical Advisory Group that provides technical oversight to both MIKE and ETIS[536] The TETF has been established to coordinate the exchange of intelligence and joint actions to combat illegal activities such as the trade in tiger and leopard skins. It is supervised by the Secretariat, which also provides enforcement assistance.[537]

As discussed earlier, TRAFFIC plays an important role in the management of these mechanisms, but its contribution to the enforcement of CITES furthermore includes supplying the Secretariat with valuable information from undercover investigations of

illegal wildlife trade and publishing reports on issues such as the farming of musk deer and tigers and the effects of sports hunting.[538]

iii. Supervising Compliance and Enforcement by the Secretariat of the Convention

The convention has handed considerable authority to the Secretariat, which has been made responsible for studying the reports of the Parties and taking further action where necessary,[539] inviting the attention of the Parties on important matters,[540] preparing annual reports for the Parties on the implementation of the convention,[541] making recommendations for the implementation of the convention,[542] as well as the Article XIII procedure (as discussed above).[543]

It appears that the Secretariat has used these powers actively to supervise Parties' compliance with and enforcement of the convention. It encourages Parties to send their annual and biennial reports and scrutinises their contents. It manages the Article XIII procedure, publishes (sometimes confrontational) reports, sends out notifications, carries out verification missions and usually initiates recommendations to suspend trade. These and other activities are carried out on a modest budget.[544]

Many commentators agree that the Secretariat's achievements in this area are impressive. It has been remarked that the CITES Secretariat 'has more authority, and has been far more active in compliance matters, than secretariats under other MEAs',[545] and that its 'role in compliance control affords it unusually strong influence in the decision-making process',[546] although it has also been argued that 'the system as it stands concentrates too much power in the hands of the Secretariat'.[547]

iv. International Dispute Settlement Procedures

The convention includes a clause on the resolution of disputes.[548] The first step to resolve a dispute between two or more Parties regarding the interpretation or application of the provisions of CITES should be negotiation between the Parties involved.[549] If this does not yield a satisfactory result, Parties may submit the dispute to arbitration, but only by mutual consent.[550] This provision has, however, not played a significant role to date.

v. Conclusion

The low priority accorded by Parties to the enforcement of and compliance with CITES does not contribute to the establishment of a strong deterrent to criminals from getting involved in the illegal wildlife trade. Combating this type of crime requires a high level of enforcement at the national level, active reporting to the Secretariat on illicit wildlife trade, intense international and regional cooperation as well as sufficient funding. These requirements have only been partly met. Apprehended offenders usually get away with the confiscation of the specimens and at most a fine. These shortcomings have been widely recognised and the Secretariat has even stated that 'there is little point in having a Convention if one does not enforce it'.[551]

The supervisory measures that are in place are extensive and include a non-compliance procedure. The possibility to recommend the suspension of trade, which is now an important part of the CITES compliance procedure, has proven to be a powerful "big stick", able to lead a Party back to compliance. The enforcement monitoring mechanisms for the

monitoring of elephants and big cats are important additions and the support offered by TRAFFIC is another big plus. Furthermore, the Secretariat deserves recognition for its supervising role.

However, Parties' compliance with the requirements arising from these supervisory measures, especially regarding the timely submission of the annual and biennial reports, is disappointing. Less than three-quarters of the Parties have presented their biennial reports and although the submission of the annual reports shows a (slightly) better performance, over 33% of the Parties still did not put forward their 2008 reports on time, while the reliability of the contents of the annual reports that were submitted is questionable.

In relation to the benchmark, it could be summarised that the convention has the necessary supervisory measures in place and compliance and enforcement are actively and verifiably supervised by the Secretariat. However, compliance with and enforcement of CITES by the Parties is clearly insufficient. The enforcement of the national CITES legislation has a low priority, sanctions are often non-deterrent and reporting to the Secretariat is deficient.

It should therefore be concluded that the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

3. The Effectiveness of CITES: Conclusion

The assessment of CITES shows a 'satisfactory' rating on three of the ten elements of the Effectiveness Test, whereas the score on the other seven elements is 'unsatisfactory'.

The three 'satisfactory' elements are 'Parties', 'Environmental NGOs and Other Stakeholder Groups' and 'Reservations, Derogations and Other Exceptions'.

Because 175 states are a Party to the convention, including those that can be expected to make a significant contribution, CITES secures a 'satisfactory' rating on the 'Parties' element.

The cooperation with 'Environmental NGOs and Other Stakeholder Groups' also scores a 'satisfactory'. Close relations exist with the IUCN, the WWF and TRAFFIC and organisations such as Interpol and the World Customs Organisation, which all play an important role in the implementation and enforcement of the convention. The involvement of other stakeholder groups, including the private sector, is facilitated within CITES as well.

The third 'satisfactory' score concerns 'Reservations, Derogations and Other Exceptions'. Parties that were taking advantage of the ample opportunities to make reservations in relation to listed species and to use the various derogations in the convention and trade related exceptions introduced by the COP, have successfully been reined in by the bodies of the convention.

CITES receives an 'unsatisfactory' rating on seven elements of the Effectiveness Test: 'Institutional Framework', 'Objectives, Measures and Timing', 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness', 'Incentives' and 'Compliance and Enforcement'.

Although the institutions of the convention appear to function well, the financial situation of CITES is dire. The Secretariat is only able to carry out a limited part of its planned activities, which will impair the operation and implementation of the convention. An 'unsatisfactory' score on the 'Institutional Framework' element is the result.

The convention gets the same rating on the 'Objectives, Measures and Timing' element. A clear objective is lacking, which obscures the intended level of protection of the CITES

species. The extensive measures of the convention have not prevented some serious flaws in the trade system, such as the relaxed approach to the trade in Appendix II species, the dubious quota systems and the lack of protection of live specimens between capture and transport. Furthermore, the Strategic Vision shows little ambition and a time frame in relation to the implementation of its goals is not available. The National Legislation Project, however, does include a time schedule.

The 'Implementation' of CITES is still 'unsatisfactory', but the National Legislation Project that has been introduced to address this issue seems to be successful and improvements may therefore be expected.

CITES does not escape an 'unsatisfactory' score on the 'Monitoring' element either. Various monitoring instruments, such as the Fort Lauderdale criteria, the periodic review of the appendices, the non-detriment findings, the significant trade review and the annual reporting, are available, but their implementation is often problematic. One of the consequences is that sound scientific data on many of the 34,000 CITES species is lacking. The involvement of the CITES bodies and the environmental NGOs is impressive and TRAFFIC sets a fine example. Unfortunately, this can not be said of most of the Parties, which have not accorded monitoring the appropriate priority.

The creation of public awareness is not high on the CITES agenda and the fact that the convention only addresses the supply side of the trade in endangered species is a major shortcoming. CITES has not developed a CEPA programme, nor has there been a discussion about the development of national CEPA programmes. As a result, the convention receives an 'unsatisfactory' rating on the 'Communication, Education and Public Awareness' element.

The convention is also given an 'unsatisfactory' on the 'Incentives' element. Except for the economic incentive, there are no compelling incentives for the Parties to join or comply with the convention. A proper financial incentive is sorely missed. Many of the listed species occur in the territories of Parties that are developing countries and their poor compliance record is at least partly the result of severe financial constraints. The international assistance incentive also suffers from a lack of funding and as a result demand greatly outweighs the assistance on offer. The cooperation incentive is clearly underdeveloped.

The final element on which CITES is judged 'unsatisfactory' is 'Compliance and Enforcement'. The convention has several forms of supervision available, of which the non-compliance procedure is the most powerful, especially since the ultimate sanction is the suspension of trade in some or all CITES species with the non-complying Party or non-Party state. Although this has proven to be successful on many occasions, the enforcement of CITES at the national level is often just a feeble response to a hugely lucrative illegal trade. The sanctions are usually non-deterrent and the reporting by Parties on this trade to the Secretariat is deficient. Besides, the submission of the biennial reports by typically less than half of the Parties is also disappointing.

The scores on seven of the ten elements are still 'unsatisfactory' and, as a consequence, the Effectiveness Test confirms that this convention is **not yet effective**.

[1] See www.cites.org/eng/disc/what.shtml (accessed 12 June 2010); see Box I for definition of 'specimen'.
[2] Ibid.
[3] www.cites.org (accessed 31 December 2009).
[4] See Engler M. and Parry-Jones R., *Opportunity or threat: The role of the European Union in global wildlife trade* (TRAFFIC, 2007) 9; timber and fisheries account for 90% of this value.
[5] See U.S. Congressional Research Service, *CRS Report for Congress – International Illegal Trade in Wildlife: Threats and U.S. Policy* (Updated 22 August 2008) 2.
[6] Huxley C., 'CITES: The Vision' in Hutton J. and Dickson B. (Eds.), *Endangered Species Threatened Convention: The Past, Present and Future of CITES* (London, 2000) 7.
[7] See www.cites.org/eng/disc/species.shtml (accessed 12 June 2010).
[8] CITES, Article II, paragraph 1.
[9] CITES, Article II, paragraph 2.
[10] CITES, Article II, paragraph 3.
[11] See www.cites.org/eng/disc/species.shtml (accessed 12 June 2010).
[12] Decision Conf. 11.1 (2000).
[13] Resolution Conf. 14.2-2 (2007), Annex.
[14] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 29; the author was Secretary-General of CITES from 1978 to 1981; see also on this subject Young S., 'Contemporary Issues of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Debate Over Sustainable Use' (2003) 14 *Colorado Journal of International Environmental Law & Policy* 173 and 182-186.
[15] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 14-15; see also Ong D., 'The Convention on International Trade in Endangered Species (CITES, 1973): Implications of Recent Developments in International and EC Environmental Law' (1998) 10:2 *Journal of Environmental Law* 294-295, 300; and Dickson B., 'Land and Resource Management, I. CITES in Harare: A Review of the Tenth Conference of the Parties' (1998) 9 *Colorado Journal of International Environmental Law & Policy* 55-56.
[16] CITES, Article I (a).
[17] CITES, Article I (b).
[18] CITES, Article I (c).
[19] CITES, Article I (d).
[20] CITES, Article I (e).
[21] CITES glossary on www.cites.org/eng/resources/terms/glossary.shtml.
[22] Ibid.
[23] Ibid.
[24] Ibid.
[25] Ibid.
[26] Ibid.
[27] See www.cites.org (accessed 31 December 2009).
[28] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 49.
[29] Ibid., 18.
[30] See Broad S., Mulliken T. and Roe D., 'The Nature and Extent of Legal and Illegal Trade in Wildlife' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 12.
[31] Ibid.; see also Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 46.
[32] The amendment was adopted at an extraordinary meeting of the Conference of the Parties in Gaborone, Botswana on 30 April 1983.
[33] See www.cites.org/eng/disc/parties/gaborone.shtml (accessed 12 June 2010); this number has remained unchanged for many years.
[34] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 54.
[35] Council Regulation (EEC) No. 3626/82 (4) of 3 December 1982, now replaced by Council Regulation (EC) No. 338/97 of 9 December 1996.

[36] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 38.
[37] Ibid.; see also www.cites.org/eng/disc/parties/index.shtml.
[38] CITES, Article XI.
[39] CITES, Article XII.
[40] CITES, Article IX.
[41] CITES, Article XI, paragraph 2; in practice it is often three years.
[42] CITES, Article XI, paragraph 3.
[43] CITES, Article XI, paragraph 3 (a); in 1979, an extra-ordinary COP meeting was held to amend Article XI to provide the COP with the authority to adopt financial provisions, which amendment entered into force in 1987.
[44] CITES, Article XI, paragraph 3 (b).
[45] CITES, Article XI, paragraph 3 (c).
[46] CITES, Article XI, paragraph 3 (d).
[47] CITES, Article XI, paragraph 3 (e).
[48] CITES, Article XVII.
[49] See www.cites.org/eng/res/intro.shtml (accessed 12 June 2010).
[50] See CoP14, Inf.27 (2007), paragraph 3.
[51] Resolution Conf. 2.2 (1979) and Conf. 11.1 (Rev. CoP 14) (2000), Annex I.
[52] See sub-section 2.10 for more information.
[53] The regions are: Africa, Asia, Europe, North America, Central and South America and the Caribbean, and Oceania.
[54] Rules of Procedure of the Standing Committee, Rule 6, paragraphs 1 and 2.
[55] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 49.
[56] Resolution Conf. 11.1 (Rev. COP14) (2000), paragraph 9.
[57] CITES, Article XII.
[58] See also sub-section 2.10.
[59] CITES, Article XII (g).
[60] See www.cites.org/eng/sec/ann_rep/index.shtml.
[61] CITES, Article XII, paragraph 1.
[62] See for more information sub-sections 2.3 and 2.7.
[63] CITES Secretariat, *Activity Report of the CITES Secretariat 2008-2009* (2009) 7.
[64] Ibid.
[65] See CoP 14 Doc. 7.3 (Rev. 1) (2007).
[66] CITES Secretariat, *Activity Report of the CITES Secretariat 2008-2009* (2009) 7.
[67] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 45.
[68] Resolution Conf. 6.1 (1987); see also Resolution Conf. 11.1 (Rev. COP14) (2000).
[69] See IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 15.
[70] Resolution Conf. 11.1 (Rev. COP14) (2000), Annex 2.
[71] CoP12 Doc. 13.3 (2002).
[72] CITES, Article IX.
[73] See for more information on the functioning of these authorities sub-sections 2.4, 2.5 and 2.7.
[74] CITES, Article XI, paragraph 3 (a).
[75] Resolution Conf. 14.1 (2007).
[76] Ibid.
[77] Ibid., Annex 2.
[78] See www.cites.org/eng/disc/fund.shtml (accessed 13 June 2010); see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 154.
[79] See sub-section 2.9.
[80] See for approval requirements Resolution Conf. 12.2 (2002).
[81] See www.cites.org/eng/disc/fund.shtml (accessed 13 June 2010).
[82] CoP14, Doc. 7.3 (Rev. 1) (2007).

[83] Ibid., paragraph 12 and Annex 2.
[84] Resolution Conf. 14.1 (2007).
[85] Decision Conf.11.1 (2000).
[86] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 55.
[87] Resolution Conf. 14.2 (2007), Goal 2.
[88] Ibid.
[89] CITES, Article XI, paragraphs 6 and 7.
[90] CITES, Article XI, paragraph 6.
[91] CITES, Article XI, paragraph 7.
[92] CITES, Article XII, paragraph 1.
[93] Resolution Conf. 13.8 (2004).
[94] Rules of Procedure of the Standing Committee, as amended at the 53rd meeting in Geneva, June-July 2005, Rule 6, paragraphs 1 and 2.
[95] 46th Meeting of the Standing Committee, March 2002; see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 49.
[96] See Rules of Procedure for Meetings of the Animals Committee, effective from 25 April 2008, Rule 7 and Rules of Procedure for Meetings of the Plants Committee, effective from 20 April 2008, Rule 7.
[97] Resolution Conf. 14.1 (2007).
[98] Resolution Conf. 14.2 (2007), Objective 3.3.
[99] Gillespie A., 'Facilitating and Controlling Civil Society in International Environmental Law' (2006) 15:3 *RECIEL* 327.
[100] The MOU is available on www.cites.org/eng/disc/sec/index.shtml.
[101] See wwf.panda.org.
[102] See www.traffic.org/overview.
[103] Ibid.
[104] This concerns the so-called flagship species: elephant, tiger and other Asian big cats, rhinoceros, great apes, vicuña, Eurasian falcons, marine turtles, sturgeon and mahogany.
[105] Such as those concerning timber, marine fisheries, medicinal plants, wild meat and trophy hunting.
[106] Hotspots are China's borders, East/Southern Africa, EU's eastern borders, Mexico, South-East Asia, Indo-Melanesia; see for more information www.traffic.org/overview.
[107] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 49.
[108] See also sub-section 2.9.
[109] See www.ifaw.org.
[110] See www.fauna-flora.org.
[111] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 46, 69 and 254.
[112] See Dickson B., 'What is the Goal of Regulating Wildlife Trade? Is Regulation a Good Way to Achieve this Goal?' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 24.
[113] Stated by IFAW on their website www.ifaw.org.
[114] See www.unep-wcmc.org.
[115] Resolution Conf. 14.2 (2007).
[116] See Chapter III, sub-section 5.3 (iii) for more information on the Biodiversity Liaison Group.
[117] All documents are available on www.cites.org/eng/disc/sec/index.shtml.
[118] Resolution Conf. 13.3 (2004), paragraph (b).
[119] See for more information on this agreement Chapter II, sub-section 4.2.
[120] The MOU is available on www.cites.org/eng/disc/sec/index.shtml.
[121] Ibid.
[122] See Chapter II, sub-section 2.2.
[123] Resolution Conf. 2.9 (1979).
[124] Adopted in 2000, revised in 2002.
[125] Resolution Conf. 14.4 (2007); see Chapter II, sub-section 3.2 for more information on the ITTA and the ITTO.
[126] See CITES document SC47 Doc. 7 (2002).
[127] See CITES document SC43.10.1 (2000).

[128] Documents available on www.cites.org/eng/disc/sec/index.shtml.
[129] See www.interpol.int.
[130] See www.interpol.int/Public/EnvironmentalCrime/Wildlife/WorkingGroup/Default.asp.
[131] Ibid.
[132] See www.wcoomd.org.
[133] Ibid.
[134] See Memorandum of Understanding Between The World Customs Organisation (WCO) and the CITES Secretariat, 4 July 1996, paragraph 10.
[135] Documents available on www.cites.org/eng/disc/sec/index.shtml.
[136] Memorandum of Understanding Between the U.S. Fish and Wildlife Service Office of Law Enforcement/Clark R. Bavin National Fish & Wildlife Forensic Laboratory and the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, 15 October 1998, paragraph 10.
[137] MOU available on www.cites.org/eng/disc/sec/index.shtml.
[138] See for more information on this subject Chapter III, sub-section 5.3 (iv).
[139] See Decision Conf. 14.1 (2000), Goal 5.
[140] Objective 3.3 only states that 'cooperation with relevant international environmental, trade and development organizations should be enhanced' (Resolution Conf. 14.2 (2007)).
[141] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 158.
[142] Resolution Conf. 12.2 (2002).
[143] Ibid., paragraph 3 (f).
[144] See CoP13 Doc.8.4 (2004), Annex 2.
[145] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 29.
[146] Decision Conf. 11.1 (2000), Introduction.
[147] Resolution Conf. 14.2 (2007).
[148] See also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 28; and IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 13; and Dickson B., 'What is the Goal of Regulating Wildlife Trade? Is Regulation a Good Way to Achieve this Goal?' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 23.
[149] See CITES, Article III, paragraphs 2 (a), 3 (a), 5 (a) and Article IV, paragraphs 2 (a), 6 (a).
[150] See www.cites.org/eng/disc/what.shtml.
[151] CBD, Decision VI/26 (2002).
[152] CBD, Article 2.
[153] See Resolution Conf. 13.2 (Rev. CoP14) (2004).
[154] See also section 1 of this chapter; see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 14-15.
[155] Resolution Conf. 8.3 (Rev. CoP13) (1992).
[156] CITES, Article II, paragraph 1.
[157] CITES, Article II, paragraph 2 (a).
[158] CITES, Article II, paragraph 2 (b).
[159] CITES, Article II, paragraph 3.
[160] Resolution Conf. 1.1 (1976).
[161] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 45.
[162] Adopted at Fort Lauderdale, Florida, USA at the COP9 meeting.
[163] See Brooks R., Jones R. and Virginia R., *Law and Ecology: The rise of the ecosystem regime* (Hants, 2002) 330-331; see also Note, 'The CITES Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking' (2001) 114 *Harvard Law Review* 1792.
[164] See also sub-section 2.7.
[165] Resolution Conf. 9.25 (Rev. CoP14) (1994).
[166] See www.cites.org/eng/disc/species.shtml (accessed 12 June 2010).
[167] CITES, Article III, paragraphs 2-5.

168 CITES, Article III, paragraph 3.
169 CITES, Article III, paragraphs 2 (a) and 3 (a).
170 CITES, Article III, paragraph 2 (d).
171 CITES, Article III, paragraph 2 (b).
172 CITES, Article III, paragraph 2 (c).
173 CITES, Article III, paragraph 3 (c).
174 See Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005) Trade in Specimens of Appendix I Species.
175 See Resolution Conf. 5.10 (1985).
176 CITES, Article III, paragraph 3 (b).
177 CITES, Article III, paragraph 4 (a).
178 CITES, Article III, paragraph 4 (b).
179 CITES, Article III, paragraph 4 (c).
180 See Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005) Trade in Specimens of Appendix I Species.
181 CITES, Article IV.
182 CITES, Article IV, paragraph 2 (a).
183 CITES, Article IV, paragraph 2 (b).
184 CITES, Article IV, paragraph 2 (c).
185 CITES, Article IV, paragraph 5.
186 CITES, Article XIV, paragraph 1.
187 CITES, Article IV, paragraph 3.
188 CITES, Article III, paragraph 5.
189 CITES, Article IV, paragraph 6.
190 See for instance Ong D., 'The Convention on International Trade in Endangered Species (CITES, 1973): Implications of Recent Developments in International and EC Environmental Law' (1998) 10:2 *Journal of Environmental Law* 297-298; and Note, 'The CITES Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking' (2001) 114 *Harvard Law Review* 1789; and Swanson T., 'Developing CITES: Making The Convention Work for All of the Parties' in Hutton J. and Dickson B. (Eds.), *Endangered Species Threatened Convention: The Past, Present and Future of CITES* (London, 2000) 142-143.
191 See Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005) Trade in Specimens of Appendix II Species.
192 CITES, Article V.
193 CITES, Article V, paragraph 3.
194 CITES, Article V, paragraph 4.
195 Resolution Conf. 10.21 (1997).
196 Ibid.
197 CITES, Article VII, paragraph 2.
198 CITES, Article VII, paragraph 3.
199 CITES, Article VII, paragraph 4.
200 CITES, Article VII, paragraph 6.
201 CITES, Article VII, paragraph 7.
202 See Box I for definitions.
203 See www.cites.org/eng/resources/quotas/index.shtml.
204 See Resolution Conf. 14.7 (2007).
205 Resolution Conf. 12.3 (Rev. CoP14) (2002).
206 See www.cites.org/eng/resources/quotas/index.shtml.
207 Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005) Quota Systems: Introduction.
208 Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 36-37.
209 See D' Amato A. and Engel K. (Eds.), *International Environmental Law Anthology* (Cincinnati, 1995) 243; see also Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 41.
210 CITES, Article VI, paragraph 2.
211 CITES, Article VI, paragraph 3.

[212] CITES, Article VI, paragraph 2.
[213] See Resolution Conf. 12.3 (Rev. CoP13) (2002).
[214] CITES, Article VI, paragraph 7.
[215] See Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005) The Marking of Specimens.
[216] CITES, Article IX.
[217] CITES, Article VIII, paragraph 1.
[218] CITES, Article VIII, paragraph 3.
[219] CITES, Article VIII, paragraph 3.
[220] CITES, Article VIII, paragraph 4.
[221] The Humane Society of the United States indicates that 40 to 50% of finches and waxbills captured in Senegal and 31% of birds captured in Tanzania die prior to export.
[222] See Green J., 'Brief Summary of the International Trade in Wild-Caught Reptiles' (2005) Michigan State University College of Law.
[223] See Cooper M. & Rosser A., 'International regulation of wildlife trade: relevant legislation and organisations' (2002) 21:1 *Scientific and Technical Review* 114.
[224] CITES, Article VIII, paragraph 6.
[225] CITES, Article VIII, paragraph 7 (a).
[226] CITES, Article VIII, paragraph 7 (b); see also sub-section 2.10.
[227] CITES, Article X.
[228] See Yale Center for Environmental Law and Policy, Student Clinic, 'Improving Enforcement and Compliance with the Convention on International Trade in Endangered Species' (2002) Chapter I: Loopholes in CITES.
[229] See for instance Resolution Conf. 9.5 (Rev. CoP14) (1994).
[230] Resolution Conf. 12.10 (Rev. CoP14) (2002); see also sub-section 2.6.
[231] See IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 36.
[232] CITES, Article XIV, paragraph 1 (a).
[233] CITES, Article XIV, paragraph 1 (b).
[234] CITES, Article XV, paragraph 1 (a).
[235] CITES, Article XV, paragraph 1 (b).
[236] See www.iids.ca/cites/cop14.
[237] Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 42-43.
[238] Rules of Procedure of the Conference of the Parties (as amended at the 14th meeting, The Hague, 2007), Rule 25, paragraph 2.
[239] Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 42-43.
[240] CITES, Article XV, paragraph 1 (c).
[241] CITES, Article XV, paragraph 2.
[242] CITES, Article XV, paragraph 2 (e).
[243] Resolution Conf. 5.20 (1985).
[244] IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 32; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 32.
[245] CITES, Article XV, paragraph 3.
[246] CITES, Article XVI, paragraphs 1 and 2.
[247] CITES, Article XVI, paragraph 3.
[248] CITES, Article XVI, paragraph 2.
[249] See under 'Fundamental principles of the Convention (Article II)'.
[250] Resolution Conf. 10.10 (Rev. CoP14) (1997).
[251] Ibid.
[252] Resolution Conf. 11.5 (2000); see also sub-section 2.10.
[253] See Doc. 11.20.1 (2000); see also sub-section 2.10.
[254] Resolution Conf. 8.4 (1992).

255 Decision Conf. 11.1 (2000).
256 Resolution Conf. 14.2 (2007).
257 See Document SC 57 Com 6: Strategic Vision 2008-2013, Development of Indicators and Document SC 57 Sum. 8 (18/07/2008): Executive Summary.
258 *Brown v Forestry Tasmania* (No 4) [2006] FCA 1729, paragraph 264.
259 Resolution Conf. 8.4 (Rev. CoP14) (1992).
260 See Reeve R., 'Wildlife trade, sanctions and compliance lessons from the CITES regime' (2006) 82:5 *International Affairs* 895.
261 Resolution Conf. 8.4 (Rev. CoP14) (1992).
262 Working Document 10.31 (Rev.) (1997).
263 Ibid.
264 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 134-158.
265 Less than 50%.
266 See CoP14 Doc. 24 (2007).
267 Such as Aruba, the Cayman Islands, and Greenland.
268 Less than 50%.
269 See Working Document CoP14 Doc. 24 (2007), Annex 2 for an overview of the status of each Party.
270 Ibid.
271 See sub-section 2.7 for more information regarding the expertise of the Scientific Authorities.
272 See Vasquez J., 'Compliance and Enforcement Mechanisms of CITES' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 67.
273 See Working Document CoP12 Doc. 27 (2002), paragraph 42; and Vasquez J., 'Compliance and Enforcement Mechanisms of CITES' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 67; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 255-257.
274 Engler M. and Parry-Jones R., *Opportunity or threat: The role of the European Union in global wildlife trade* (TRAFFIC, 2007) 14.
275 See CITES, Article III, IV, V and VII and Article VIII, paragraph 3.
276 See Resolution Conf. 10.21 (1997), paragraph (f); since the IATA regulations concern transport by air, which actually seems to be the most frequently used mode of transport, the Guidelines for the Transport of Animals by Sea of the World Organisation for Animal Health (OIE) and the OIE Guidelines for the Transport of Animals by Land could be used in cases of transport of animals by sea and by land respectively.
277 See Resolution Conf. 10.21 (Rev. CoP14) (1997).
278 CoP Decision 14.59 (2007).
279 Council Regulation (EC) No. 338/97 on the protection of species of wild fauna and flora by regulating trade therein and Council Directive (EC) No. 95/29/EC concerning the protection of animals during transport.
280 Council Regulation (EC) 338/97, Article 4, paragraph 6 (c).
281 See also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 258.
282 See sub-section 2.10 for a more detailed account of the supervising role of the Secretariat.
283 CITES, Article XXIII.
284 CITES, Articles XV, XVI and XXIII.
285 CITES, Article XXIII, paragraphs 1 and 2.
286 CITES, Article XV, paragraphs 1 (c) and 3.
287 CITES, Article XXIII, paragraph 2 and Article XVI, paragraph 2.
288 CITES, Article XV, paragraph 3, Article XVI, paragraph 2, Article XXIII, paragraph 3.
289 In effect from 13 September 2007; see www.cites.org/eng/app/reserve_index.shtml (accessed 16 June 2010).
290 Nine species in Appendix III are the subject of reservations.
291 See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 40.

[292] IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 89.
[293] See Cooney R., 'Conclusions: Looking Ahead – International Wildlife Trade Regulation and Enforcement' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 204.
[294] See Notice Federal Register of the U.S. Fish and Wildlife Service, Department of Interior, 13 August 2007.
[295] See Yale Center for Environmental Law and Policy, *Improving Enforcement and Compliance with the Convention on International Trade in Endangered Species* (2002), Loopholes in CITES; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 35.
[296] See Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 690.
[297] Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 40.
[298] Ibid.
[299] Resolution Conf. 11.3 (Rev. CoP14) (2000).
[300] Resolution 4.25 (Rev. CoP14) (1983).
[301] CITES, Article VII, paragraph 1.
[302] CITES, Article VII, paragraph 2.
[303] CITES, Article VII, paragraph 3.
[304] CITES, Article VII, paragraphs 4 and 5.
[305] CITES, Article VII, paragraphs 4 and 5.
[306] CITES, Article VII, paragraph 6.
[307] CITES, Article VII, paragraph 7.
[308] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 41; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 35; see also Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997) 122.
[309] Resolution Conf. 9.7 (Rev. CoP13) (1994).
[310] Resolution Conf. 13.6 (2004).
[311] Resolution Conf. 13.7 (2004).
[312] The term 'personal or household effects' contained in Article VII, paragraph 3, means specimens that are: a) personally owned or possessed for non-commercial purposes; b) legally acquired; and c) at the time of import, export or re-export either: i) worn or carried or included in personal baggage; or ii) part of a household move.
[313] Resolution Conf. 11.15 (Rev. CoP12) (2000).
[314] Resolution 12.3 (Rev. CoP13) (2002).
[315] Resolution Conf. 10.16 (Rev.) (1997) concerning specimens of animal species bred in captivity.
[316] Resolution Conf. 12.10 (Rev. CoP14) (2002) concerning guidelines for a procedure to register and monitor operations that breed Appendix I animal species for commercial purposes.
[317] See Box I for definition.
[318] Resolution Conf. 9.19 (Rev. CoP13) (1994) concerning guidelines for the registration of nurseries exporting artificially propagated specimens of Appendix I species.
[319] Resolution Conf. 11.11 (Rev. CoP14) (2000) regulation of trade in plants .
[320] See Box I for definition.
[321] IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 56.
[322] Ibid.
[323] Ibid.
[324] Ibid., 82.
[325] Ibid., 56.
[326] See Box I for definition of 'ranching'.
[327] Resolution Conf. 11.16 (2000).
[328] IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 59.
[329] See Box I for definition.

330 Resolution Conf. 9.24 (Rev. CoP14, Annex 3) (1994).
331 See 't Sas-Rolfes M., 'Assessing CITES: Four Case Studies' in Hutton J. and Dickson B. (Eds.), *Endangered Species Threatened Convention: The Past, Present and Future of CITES* (London, 2000) 86.
332 See CITES glossary on www.cites.org/eng/resources/terms/glossary.shtml.
333 Argentina, Bolivia, Chile and Peru; see for more information Sand P., 'Whither CITES? The Evolution of A Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 42.
334 CITES, Article XIV, paragraph 1.
335 See IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 20; and United States Government Accountability Office, *Protected Species: International Convention and U.S. Laws Protect Wildlife Differently* (2004) 36.
336 See United States Government Accountability Office, *Protected Species: International Convention and U.S. Laws Protect Wildlife Differently* (2004) 36.
337 Ibid.
338 See Council Regulation (EC) No. 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein.
339 Ibid., Article 4, paragraph 2.
340 Ibid., Preamble, third recital.
341 ESA 1973.
342 See for instance United States Government Accountability Office, *Protected Species: International Convention and U.S. Laws Protect Wildlife Differently* (2004) 33-34.
343 See McDorman T., 'Whales, the U.S. Pelly Amendment and international trade law' (1997) available on www.highnorth.no/library/Publications/iceland/wh-th-us.htm.
344 See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 39.
345 Council Regulation (EC) No. 338/97, Article 4, paragraph 6.
346 See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 39.
347 See United States Government Accountability Office, *Protected Species: International Convention and U.S. Laws Protect Wildlife Differently* (2004) 38-40; and Hutton J., 'Who Knows Best? Controversy over Unilateral Stricter Domestic Measures' in Hutton J. and Dickson B. (Eds.), *Endangered Species Threatened Convention: The Past, Present and Future of CITES* (London, 2000) 57.
348 Resolution Conf. 6.7 (1987).
349 CITES, Articles III, IV, and IX.
350 CITES, Article VIII, paragraphs 6 and 7.
351 Resolution Conf. 9.24 (Rev. CoP14) (1994).
352 Ibid., Annex 5: 'Decline'.
353 Ibid.
354 Ibid., Annex 5 formulates 'near future' as: 'a time period in which it can be projected or inferred that a species would satisfy one (or more) of the criteria in Annex I unless it is included in Appendix II. This will be taxon - and case – specific but should be greater than 5 years and less than 10 years'.
355 Ibid., Annex 2; criteria for look-alike species have been laid down in Annex 2 (b).
356 Ibid., Annex 1 and Annex 2 (a).
357 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 185-186.
358 See Note, 'The CITES Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking' (2001) 114 *Harvard Law Review* 1781 and 1784; and United States Government Accountability Office, *Protected Species: International Convention and U.S. Laws Protect Wildlife Differently* (2004) 12.
359 IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 42.
360 These were not incorporated in the Bern criteria that preceded the Fort Lauderdale criteria.
361 See for instance Note, 'The CITES Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking' (2001) 114 *Harvard Law Review* 1784.

[362] Recommendation Conf. S.S. 1.8 of the 1977 Special Working Session; see also Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005) Listing criteria for Appendices I and II.
[363] Resolution Conf. 9.24 (Rev. CoP14) (1994), page 3.
[364] Resolution Conf. 14.8 (2007), (b).
[365] Ibid., (h).
[366] Ibid., (j) and (m).
[367] See Earth Negotiations Bulletin Vol. 21 No. 62, 'Summary of the 17th meeting of the CITES Plants Committee, the joint session with the Animals Committee and the 23rd meeting of the CITES Animals Committee: 15-23 April 2008' (2008) 4-5 (Plants Committee) and 13-14 (Animals Committee); available on www.iisd.ca/cites/ac23pc17.
[368] Ibid., 4.
[369] CITES, Article IV, paragraphs 2 (a) and 3 (a).
[370] CITES, Article IV, paragraphs 2 (a) and 6 (a).
[371] See sub-section 2.6 on stricter domestic measures.
[372] CITES, Article IV, paragraph 3.
[373] CITES, Article VIII, paragraph 7.
[374] CITES, Article VIII, paragraph 6.
[375] IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 30; see also D' Amato A. and Engel K., *International Environmental Law Anthology* (Cincinnati, 1995) 246.
[376] Resolution Conf. 14.2 (2007), objective 1.5.
[377] Decision Conf. 11.1 (2000), objective 2.3.
[378] IUCN, TRAFFIC, WWF, 'The CITES Strategic Vision 2008-2013: An IUCN, TRAFFIC and WWF briefing document' (May 2007) available on www.traffic.org/cites-cop-papers/traffic_pub_cop14_17.pdf.
[379] Resolution Conf. 12.8 (Rev. CoP13) (2002).
[380] Ibid., fourth recital.
[381] CITES Doc. 3.25, 'Regulation of Trade in Wildlife Listed on Appendix II' prepared by Australia for COP3 (February/March 1981); see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 159.
[382] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 159.
[383] Resolution Conf. 12.8 (Rev. CoP13) (2002).
[384] Ibid., paragraph (m).
[385] Ibid, paragraph (n)(i).
[386] Ibid., paragraph (n)(iii).
[387] Ibid., paragraph (s).
[388] See IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 70.
[389] See in relation to the Animals Committee AC23 Doc. 8.1 (2008) and AC24 Doc. 7.1 Addendum (2009) and in relation to the Plants Committee PC17 Doc. 8.1 (2008) and PC18 Doc. 8.2 (2009).
[390] Resolution Conf. 11.17 (Rev. CoP14) (2000), third recital.
[391] IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 63.
[392] Reports should now be submitted by 31 October of the year following the year for which they are due.
[393] See 'Annual Reports of States Parties' dated 4 May 2010 available on www.cites.org/common/resources/annual_reports.pdf; see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 62-66.
[394] See www.unep-wcmc.org/species/sca/scs.htm.
[395] See www.cites.org/eng/resources/reports.shtml.
[396] See IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 19.
[397] About 6% of CITES species.

398 Blundell A. and Mascia M., 'Discrepancies in Reported Levels of International Wildlife Trade' (2005) 19:6 *Conservation Biology* 2020-2025.

399 Ibid., 2023; see also Reeve R., 'Wildlife trade, sanctions and compliance: lessons from the CITES regime' (2006) 82:5 *International Affairs* 884.

400 Blundell A. and Mascia M., 'Discrepancies in Reported Levels of International Wildlife Trade' (2005) 19:6 *Conservation Biology* 2023-2024; see also Nijman V., 'An overview of international wildlife trade from Southeast Asia' (2009) *Biodiversity Conservation* 3 available on www.Springerlink.com.

401 The U.S. Congressional Research Service estimates the value of illegal wildlife trade between USD 5 billion and USD 20 billion; see section 1 of this chapter.

402 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 69.

403 See Sand P., 'Commodity or Taboo? International Regulation of Trade in Endangered Species' (1997) *Green Globe Yearbook 1997* 25.

404 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 185.

405 Ibid.

406 See Ong D., 'The Convention on International Trade in Endangered Species (CITES, 1973): Implications of Recent Developments in International and EC Environmental Law' (1998) 10:2 *Journal of Environmental Law* 302.

407 See Resolution Conf. 10.10 (Rev. CoP14) (1997).

408 Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 88.

409 CITES, Article VIII, paragraph 7.

410 CITES, Article VIII, paragraph 8.

411 Resolution Conf. 14.2-2 (2007), Annex, Objective 3.2; a similar objective was included in the previous Strategic Vision, Decision Conf. 11.1 (2000), Goal 4: Promote greater understanding of the Convention.

412 SC57 Doc. 9: Strategic Vision 2008-2013, Development of Indicators.

413 SC57 Com. 6: Strategic Vision 2008-2013, Development of Indicators.

414 IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 85.

415 See www.panda.org/about_our_earth/species/problems/illegal_trade (accessed 19 June 2010).

416 See Lee S., Hoover C., Gaski A. and Mills J., *A World Apart: Attitudes toward traditional Chinese medicine and endangered species in Hong Kong and the United States* (1998) published jointly by TRAFFIC East Asia, TRAFFIC North America and WWF-US.

417 Amongst them the Environmental Investigation Agency and the David Shepherd Wildlife Foundation.

418 Rhino's are included in Appendix I.

419 For an extensive description of these events see Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 194.

420 IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 44-45.

421 See for instance CITES World: Official Newsletter of the Parties, Issue Number 17 – July 2006.

422 See for instance Cooney R., 'Conclusions: Looking Ahead – International Wildlife Trade Regulation and Enforcement' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 203.

423 See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 51.

424 Cooney R., 'Conclusions: Looking Ahead – International Wildlife Trade Regulation and Enforcement' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 201.

425 CITES World: Official Newsletter of the Parties, Issue Number 17 – July 2006, page 15.

426 www.cites.org.

427 Doc. 11.57 (2000).

428 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 76; and Reeve R., 'Wildlife trade, sanctions and compliance: lessons from the CITES regime' (2006) 82:5 *International Affairs* 895.

429 See www.unep-wcmc.org.

[430] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 73-75; and Sand P., 'Whither CITES? The Evolution of a Treaty in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 49.
[431] Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 70.
[432] Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 48.
[433] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 71.
[434] Doc. 11.20.1 (2000), paragraph 13.
[435] Since 1994, secret balloting is granted if requested by at least ten Parties.
[436] See for instance Note, 'The CITES Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking' (2001) 114 *Harvard Law Review* 1791-1792; and Dickson B., 'Land and Resource Management: CITES in Harare: A Review of the Tenth Conference of the Parties' (Yearbook 1997) *Colorado Journal of International Environmental Law & Policy* 62-63..
[437] See www.cites.org/eng/news/newsletter.shtml.
[438] See for instance D'Amato A. and Engel K., *International Environmental Law Anthology* (1995) 42.
[439] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 129.
[440] Ibid., 194-195.
[441] See Engler M. and Parry-Jones R., *Opportunity or Threat: The Role of the European Union in Global Wildlife Trade* (TRAFFIC, 2007) 10, Table 1.
[442] Ibid., 6.
[443] Ibid., 21.
[444] See for instance IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 91.
[445] See for instance Cooney R., 'CITES and the CBD: Tensions and Synergies' (2001) 10:3 *RECIEL* 262-263.
[446] See sub-section 2.2 (vi).
[447] See IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000) 89; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 272-274.
[448] See www.cites.org/eng/disc/fund.shtml.
[449] Usually less than ten.
[450] See www.cites.org/eng/disc/fund.shtml.
[451] See for instance Engler M. and Parry-Jones R., *Opportunity or Threat: The Role of the European Union in Global Wildlife Trade* (TRAFFIC, 2007) 50.
[452] Resolution Conf. 14.2 (2007); see also goal 7 of the previous Strategic Vision through 2005: Provide the Convention with an improved and secure financial and administrative basis.
[453] See Resolution Conf. 14.2 (2007) objectives 2.2 and 2.3.
[454] SC57 Com 6: Strategic Vision 2008-2013, Development of Indicators.
[455] For instance the indicator for the objective 'sufficient resources are secured at the national/international levels to implement capacity-building programmes' is 'the number of capacity building activities mandated by Resolutions and Decisions that are fully funded'.
[456] Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 158.
[457] See CoP14 Doc. 16 (2007).
[458] MOUs available on www.cites.org/eng/disc/sec/index.shtml.
[459] MOU between TRAFFIC International and the Secretariat, signed in 1999.
[460] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 240.
[461] Ibid., 241.
[462] Ibid., 229; see also Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 51.

463 Resolution Conf. 7.5 (1989), now part of Resolution Conf. 11.3 (2000); see Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 221-222.
464 See www.cites.org/eng/disc/sec/index.shtml.
465 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 222.
466 Ibid., 238.
467 Resolution Conf. 3.4 (1981).
468 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 237-238.
469 See http://lusakaagreement.org.
470 See for more information sub-section 2.10 and Chapter II, sub-section 4.2.
471 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 237.
472 See www.cec.org.
473 Council Regulation (EC) No. 338/97, Articles 18, 17 and 14 respectively.
474 See for more information http://ec.europa.eu/environment/cites/home_en.htm.
475 Decision 11.170, Annex 6.
476 See Chapter III, sub-sections 4.10 and 5.10.
477 CITES, Article VIII, paragraph 1.
478 CITES, Article VIII, paragraphs 6 and 7.
479 CITES, Article XIII.
480 Resolution Conf. 11.3 (Rev. CoP14) (2000).
481 Ibid., Recitals 6 and 7.
482 CoP12 Doc. 27 (2002), paragraph 61.
483 See for instance Document CoP14 Doc. 25 (2007), paragraph 32; Document SC50 Inf. 6 (2004), paragraph (a); EIA, *Upholding the Law: The Challenge of Effective Enforcement* (2007) 2, available on www.eia-international.org; see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 14 and 251; and Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997) 113.
484 Document SC50 Inf. 6 (2004) Introduction.
485 Document CoP14 Doc. 25 (2007), paragraph 32.
486 McOmber E., 'Problems in Enforcement of the Convention on International Trade in Endangered Species' (2002) 27:2 *Brook Journal of International Law* 700.
487 EIA, *Upholding the Law: The Challenge of Effective Enforcement* (2007) 2; see also U.S. Congressional Research Service, *CRS Report for Congress, International Illegal Trade in Wildlife: Threats and U.S. Policy* (Updated 22 August 2008) 7.
488 Document SC50 Inf. 6 (2004), Conclusion (b).
489 Ibid., Conclusion (a); see also CoP12 Doc. 27 (2002), paragraph 21.
490 Ibid., it is stated in Resolution Conf. 12.3 (Rev. CoP14) (2002), fourth recital, that 'false and invalid permits and certificates are used more-and-more often for fraudulent purposes'.
491 See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 37 and 179 (example of Madagascar).
492 Jepson P., 'The Need for a Better Understanding of Context when Applying CITES Regulations: The Case of an Indonesian Parrot – Tanimbar Corella' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 154; see also sub-section 2.7.
493 See for instance BfU report, *Organised environmental crime in the EU Member States* (2003) III; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 250 and 254.
494 See Notification to the Parties No. 966, 1997.
495 See Doc. 11.20.1 (2000), paragraph 15-23 and Document CoP14 Doc. 25 (2007), paragraphs 11-18.
496 See CoP12 Doc. 27 (2002), paragraph 5.
497 See for instance Document CoP12 Doc. 27 (2002), paragraph 4; and Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 69.
498 Document SC50 Inf. 6 (2004), paragraph (e).
499 See Doc. 11.20.1 (2000), paragraph 13.
500 See for more information sub-section 2.9.

[501] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 255; and Vasquez J., 'Compliance and Enforcement Mechanisms of CITES' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 67.
[502] See Milieu Consortium (Milieu Ltd. – DDH Consulting – ViSKon), *Study on the Enforcement of the EU Wildlife Trade Regulations in the EU-25* (2006) 28.
[503] Ibid., 29.
[504] See Vasquez J., 'Compliance and Enforcement Mechanisms of CITES' in Oldfield S. (Ed.), *The Trade in Wildlife: Regulation for Conservation* (London, 2003) 68.
[505] See Sarpong G., 'International Environmental Law and the Ghanaian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 117.
[506] Milieu Consortium (Milieu Ltd. – DDH Consulting – ViSKon), *Study on the Enforcement of the EU Wildlife Trade Regulations in the EU-25* (2006) 29; see also Thomas B., 'Slippers, Thieves and Smugglers-Dealing with the Illegal International Trade in Orchids' (2006) 8 *Environmental Law Review* 85-92.
[507] See for instance Bodansky D. and Manous M., 'International Environmental Law in US Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 241.
[508] Examples are *HJ Justin and Sons v Brown* 519 F.Supp. 1383 (ED Calif. 1981) (USA), ABRvS 5 July 1999, JM 1999/149 (The Netherlands), and Case C – 510/99 *Xavier Tridon* (2001) ECR I-7777 (EU).
[509] Council Regulation (EC) No. 338/97 and Commission Regulation (EC) No. 865/2006.
[510] Article 226 of the EC Treaty.
[511] Case C – 182/89 *Commission v France* [1990] ECR I-4337.
[512] CITES, Article VIII, paragraph 7.
[513] CITES, Article XIII.
[514] CITES, Article VIII, paragraph 6.
[515] See for the latest overview www.cites.org/common/resources/annual_reports.pdf (accessed 21 June 2010); deadline for submission is 31 October of the year following the year for which the report is due.
[516] See for detailed information sub-section 2.7; see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 147; and Lanchbery J., 'Long-Term Trends in Systems for Implementation Review in International Agreements on Fauna and Flora' in Victor D, Raustiala K., and Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998) 70.
[517] Resolution Conf. 11.17 (Rev. CoP14) (2000).
[518] See www.cites.org/eng/news/sundry/trade_suspension.shtml (accessed 21 June 2010).
[519] CITES, Article VIII, paragraph 7 (b).
[520] See www.cites.org/eng/resources/reports.shtml.
[521] See www.cites.org/eng/resources/reports/biennial.shtml (accessed 21 June 2010).
[522] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 48.
[523] Resolution Conf. 11.3 (Rev. CoP14) (2000) under *Regarding application of Article XIII*.
[524] See Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 48-49.
[525] See sub-section 2.5.
[526] See sub-section 2.7.
[527] See for more information Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 75-76.
[528] See for instance Resolution Conf. 11.18 (2000); see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 91-95.
[529] See www.cites.org/eng/news/sundry/trade_suspension.shtml.
[530] Ibid. (accessed 21 June 2010).
[531] See Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 240.
[532] See Reeve R., 'Wildlife trade, sanctions and compliance: lessons from the CITES regime' (2006) 82:5 *International Affairs* 892.
[533] Resolution Conf. 14.3 (2007), Annex.
[534] Ibid., paragraph 1.
[535] Ibid., paragraph 30.

[536] See www.cites.org/eng/prog/mike_etis.shtml; see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 81.
[537] See Resolution Conf. 12.5 (2002); see also Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 223.
[538] See www.traffic.org.
[539] CITES, Article XII, paragraph 2 (d).
[540] CITES, Article XII, paragraph 2 (e).
[541] CITES, Article XII, paragraph 2 (g).
[542] CITES, Article XII, paragraph 2 (h).
[543] CITES, Article XIII.
[544] See sub-section 2.2.
[545] See Biniaz S., 'Remarks about the Cites Compliance Regimes' in Beyerlin U., Stoll P. and Wolfrum R. (Eds.), *Ensuring Compliance with Multilateral Environmental Agreements: A Dialogue between Practitioners and Academia* (Leiden, 2006) 96.
[546] Reeve R., 'Wildlife trade, sanctions and compliance: lessons from the CITES regime' (2006) 82:5 *International Affairs* 882.
[547] Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002) 321.
[548] CITES, Article XVIII.
[549] CITES, Article XVIII, paragraph 1.
[550] CITES, Article XVIII, paragraph 2.
[551] Document CoP12 Doc. 27 (2002), paragraph 61.

CHAPTER VII: CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

1. Introduction

The Convention on the Conservation of Migratory Species of Wild Animals, also known as the Migratory Species Convention or the CMS, was adopted in 1979 and came into force on 1 November 1983. It is aimed at the protection of migratory animal species, which are defined in the convention text as 'the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries'.[1] The basis for the convention can be traced back to Recommendation 32 of the 1972 Stockholm Action Plan, which calls on states to develop treaties to protect species that inhabit international waters or migrate from one territory to another. The originator for the drafting of this convention was the government of (West) Germany.

Migration of animals is a global phenomenon and the species concerned can be land, sea or air animals. There are at least 8,000 – 10,000 species that are known to be migrating.[2] Examples of animals listed in the appendices to the convention are the antelope (land), the dolphin (sea) and many species of birds and bats (air). Animals may travel thousands of kilometres during their regular migration, which increases their vulnerability to a multitude of threats. To protect migratory animals that are endangered, or could become endangered without further action, cooperation between countries is necessary since these animals may cross many national boundaries as well as the high seas.

The convention makes a distinction between migratory species that are endangered and those that should be subject to agreements. A migratory species is 'endangered' if the species 'is in danger of extinction throughout all or a significant portion of its range'.[3] Endangered migratory species are listed in Appendix I to the convention. Migratory species 'which require international agreements for their conservation and management' and 'those which have a conservation status which would significantly benefit from the international co-operation that could be achieved by an international agreement', should be listed in Appendix II.[4] It should be noted that it is established practice of the CMS Secretariat to use the term 'Agreement' to denote all types of accords that are possible under the CMS, which include 'AGREEMENTS' under Article IV, paragraph 3 and 'agreements' under Article IV, paragraph 4. Memoranda of Understanding fall in the latter category. It is possible that a migratory species is listed in both appendices. The fact that Parties to the convention are supposed to sign additional agreements for specific species makes the CMS, at least in part, a framework treaty. The number of species listed in the appendices has steadily increased over the years. Appendix I includes well over 100 species, while the number of species in Appendix II is about 1,500.[5]

The convention operates under the auspices of UNEP, which provides administrative support to the convention by running the Bonn-based Secretariat. The current number of Parties is 113.[6]

In 1994, the COP adopted the 'Strategy for the Future Development of the Convention', covering the period 1998-2000.[7] Its successor was the Strategic Plan for CMS, which was adopted by the COP in 1999 for the years 2000-2005.[8] In 2005, the COP agreed upon the latest Strategic Plan for the period 2006-2011.[9]

This convention will be discussed and assessed on the basis of the Effectiveness Test in the next section.

Box I: Key Terms of the CMS

Migratory species: the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries.[10]

Cyclically: a cycle of any nature, such as astronomical (circadian, annual etc.), life or climatic, and of any frequency.[11]

Predictably: a phenomenon can be anticipated to recur in a given set of circumstances, though not necessarily regularly in time.[12]

Conservation status of a migratory species: the sum of the influences acting on the migratory species that may affect its long-term distribution and abundance.[13]

Favourable conservation status: (1) population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems; (2) the range of the migratory species is neither currently being reduced, nor is likely to be reduced, on a long-term basis; (3) there is, and will be in the foreseeable future, sufficient habitat to maintain the population of the migratory species on a long-term basis; and (4) the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management.[14]

Unfavourable conservation status: if any of the conditions set out under 'favourable conservation status' is not met.[15]

Endangered: the migratory species is in danger of extinction throughout all or a significant portion of its range.[16]

Endangered: facing a very high risk of extinction in the wild in the near future.[17]

Range: all the areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route.[18]

Habitat: any area in the range of a migratory species which contains suitable living conditions for that species.[19]

Range State: any State that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species.[20]

Range State: when a significant proportion of a geographically separate population of that species occasionally occurs in its territory.[21]

Taking: taking, hunting, fishing, capturing, harassing, deliberate killing, or attempting to engage in any such conduct.[22]

2. The Effectiveness of the CMS

2.1 Element 1: Parties

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.*

The protection of migratory species is by definition an international affair since the success of conservation measures depends on the participation of all range states. As one commentator has put it: 'International co-operation among all states along the same migration route is [ ] essential'.[23]

The convention started in 1983 with fifteen Parties; fourteen states as well as the E.C., since the convention text provides a legal basis for regional economic integration organisations to become Parties too.[24] Since 1983, other states have signed up and the convention currently has 113 Parties.[25] The Member States of the EU are all Parties to the convention as well as Australia and many African, Central and South American, Asian and Oceanic states. The United States and Canada are not, since they are of the opinion that joining the CMS would not improve upon the measures they have already in place.[26] Other important absentees are states such as Brazil, Mexico, Russia, China and Japan. All these states are significant range states for many migratory species listed in the appendices.[27]

One of the objectives in the Strategic Plan for 2000-2005 was 'to enhance global membership in CMS',[28] and an operational objective was to have at least 100 Parties by the end of 2005. At the time the Standing Committee had identified at least 8-12 non-Parties that were considered 'high priorities for recruitment'.[29] However, the identity of these states was not revealed. The 100 Parties objective has now been exceeded. In the current Strategic Plan 2006-2011 one of the objectives is to increase the membership by a further 30 Parties and to especially focus on 'those which are of high importance for migratory species, and/or for which there is a high priority for securing new agreements'.[30] It is further indicated that the target is to have 113 Parties by 2008 and 123 by 2011.[31] Specific states that should be targeted are not mentioned, but one of the 'indicators' specifies that the number of Parties in the Americas as well as in Asia should be doubled.[32]

Caddell has criticised the convention as being too Eurocentric, 'focusing on wildlife management in Central and Western Europe'.[33] The Secretariat has acknowledged that in relation to 'large target countries' the CMS 'would benefit from the sources and coverage provided by these states', but that it has 'insufficient manpower resources to engage with them fully'.[34] The Chair of the Standing Committee has also stated that greater global coverage is essential since 'species are unlikely to redirect their migration routes to pick out CMS Parties!'.[35] This is in line with the observation made by Birnie, Boyle and Redgwell that 'non-ratification of the Convention by any of the range states of some of the species listed on Appendix I means that the Convention's provisions for their protection are nugatory'.[36]

A Party has the right to denounce the convention, which denunciation will take effect one year after notification.[37] This has never happened in practice.

Conclusion

To date, the CMS has 113 Parties, less than 60% of UN Member States. Although it appears that the Secretariat is making an effort to increase this number, the CMS is still a long way off realising the three-quarter benchmark. Several important states, such as the United States, Canada, Brazil, Mexico, Russia, China and Japan, are not Parties to the convention. This not only means that the protection of migratory species might be incomplete, it also has consequences for the convention's political standing and finances. The contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.2 Element 2: Institutional Framework

Benchmark: *For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.*

The institutional framework of the convention consists of a Conference of the Parties (COP), a Standing Committee, a Secretariat and a Scientific Council. The COP, Secretariat and Scientific Council are all provided for in the convention,[38] the Standing Committee was established by Resolution 1.1 of the COP.[39] Each Party is supposed to appoint a Focal Point, who is its contact person for the convention.

i. The Conference of the Parties

The COP is the decision-making organ of the convention[40] and is required to meet at intervals not longer than three years.[41] At its meetings, the COP has to consider the financial regulations, adopt the budget for the next financial period,[42] review and assess the conservation status of migratory species and the progress made towards their conservation, provide guidance to the Secretariat and the Scientific Council and consider any reports presented to it.[43] It is also its task to make recommendations to the Parties regarding the improvement of the conservation status of migratory species, to review the progress being made under AGREEMENTS,[44] and to consider proposals to amend the appendices.[45]

The decisions taken by the COP can be in the form of either resolutions or recommendations. Resolutions are considered to be binding decisions, whereas recommendations are more advisory in nature.[46]

Any amendments to the convention must be adopted by the COP by a two-thirds majority,[47] but when adopted, Parties that do not accept the amendment may refuse to deposit an instrument of acceptance, which means that the amendment will not apply to them.[48] It appears that no amendments to the convention have been made so far.

COP decisions (resolutions and recommendations) require a two-thirds majority of the Parties present and voting,[49] although there are some exceptions.[50]

ii. The Standing Committee

The responsibility of the Standing Committee is to provide policy and operational and financial direction in between the regular COP meetings, to give guidance and advice to the

Secretariat and to prepare recommendations and resolutions for each COP meeting.[51] The committee consists of representatives of the six regions: Africa, Asia, Europe, North America, South & Central America & the Caribbean and Oceania.[52] In view of the large number of Parties in Africa and Europe, these regions have each been granted two representatives instead of one.[53] Besides, a permanent seat has been made available to the depository state (Germany),[54] while the Party that hosted the previous COP meeting and the one that will host the next COP meeting are also represented on the committee.[55]

iii. The Secretariat

The Secretariat works under the auspices of UNEP and its main tasks have been laid down in Article IX. Besides the administrative support it provides to the COP, Standing Committee and Scientific Council, its tasks include:

— to liaise with and promote contacts between the Parties, the bodies set up under AGREEMENTS and other international organisations concerned with migratory species;
— to obtain reports and other information to further the objectives and implementation of the convention;
— to prepare reports for the COP on its activities and on the implementation of the convention;
— to maintain and publish a list of Range States of all migratory species listed in Appendices I and II;
— to promote, under the direction of the COP, the conclusion of AGREEMENTS;
— to provide information on AGREEMENTS, if so required by the COP;
— to provide the general public with information concerning the convention and its objectives.

The Secretariat is based in Bonn, Germany and headed by an Executive Secretary.[56] In 2008, the number of staff was 18,[57] and the Secretariat stated at the time that its 'permanent scientific and technical capacity is seriously under-resourced'.[58]

The secretariats of some daughter agreements of the CMS are housed at the office of the CMS Secretariat. It was agreed at the CMS COP meeting in 1997 that this co-location could benefit all secretariats involved 'through cost savings and the pooling of resources' and 'by strengthening the organisational and administrative potentials and increasing the efficiency of the secretariats'.[59] A special Agreements Unit was set up, which now comprises the Secretariat of the Agreement on the Conservation of Populations of European Bats (EUROBATS) and the Secretariat of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).[60] It was announced in 2004 that the Secretariat of the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) would also join the Agreements Unit,[61] but it now appears that it has been fully integrated in the CMS Secretariat.[62]

iv. The Scientific Council

The principal tasks of the Scientific Council have been laid down in Article VIII of the convention. Besides providing scientific advice to the bodies of the convention, the bodies

of the Agreements under the convention, as well as the Parties,[63] its other main functions are:

— to recommend and coordinate research on migratory species and to evaluate the results to ascertain the conservation status of migratory species and to make recommendations to the COP;[64]
— to recommend to the COP the migratory species to be included in Appendices I or II, and to provide an indication of the range of such migratory species;[65]
— to recommend to the COP the specific conservation and management measures to be included in AGREEMENTS;[66]
— to recommend to the COP solutions to problems concerning the scientific aspects of the implementation of the convention, in particular with regard to the habitats of migratory species.[67]

Each Party is entitled to have one representative in this council, who must be an expert in the field.[68] Additional specialists could be appointed by the COP.[69] Currently, the council consists of about 88 members, of which eight are appointed specialists.[70] Under the auspices of the COP, a number of working groups reporting to the Scientific Council have been established to promote Agreements for groups of species.

The Scientific Council attempts to meet twice in between COP meetings.

v. The Focal Points

Each Party is supposed to appoint a Focal Point, an individual who is its contact person for the convention.

vi. The Institutions of the Daughter Agreements under the CMS

The Argeements signed under the CMS usually operate separately from the CMS and have their own institutional frameworks, including a Meeting of the Parties and a Secretariat. The Executive Secretary of the CMS indicated that this was initially perceived as the preferred model by the COP, but that in more recent years MOUs, which are not legally binding, have become the favourite instrument. MOUs are more cost effective to run and closer relations with the CMS Secretariat are easier to realise.[71] The various CMS daughter agreements will be discussed in more detail in sub-section 2.5.

The fact that many of these instruments have their own institutional framework, often operating quite independently from the CMS, has led to some discussion whether this is still desirable or if a more integrated entity is to be preferred.[72] At the COP9 meeting, it was decided that a special working group would look into this matter and submit their proposals in time for the COP10 meeting in 2011.[73]

vii. The Financial Budget

The convention stipulates that the COP must develop financial regulations and adopt the budget for each financial period. Parties should contribute to the budget according to a scale to be agreed upon by the COP. These decisions need to be adopted by unanimous vote of the Parties present and voting.[74] A Trust Fund has been established funded by the

annual contributions from the Parties and additional contributions from Parties, other states, governmental and intergovernmental organisations, NGOs and the private sector.

The average annual budget for 2006-2008, based on the annual contributions of the Parties, appears to have been around EUR 2.2 million.[75] Over the same period, an additional amount of EUR 4.7 million was raised for special projects by the Secretariat from public and private sources.[76] This amount was substantially higher than in previous years,[77] due to a grant of EUR 1.9 million from the European Commission and special fundraising efforts by the Secretariat.

Two options were proposed by the Secretariat in August 2008 for the 2009-2011 budget period. The first one, the 'zero real growth' option, was based on a modest increase of the budget of 3% per annum, whereas the second option showed an increase of 6.5% per annum, as compared to the 2006-2008 budget.[78] These options were later revised to increases of 1.8% per annum and 9% per annum respectively.[79] The second option would enable the Secretariat to add four more staff and to introduce a new reporting system for Parties. At the COP9 meeting in December 2008, it was decided that even the first budget option was still too ambitious and had to be reduced. The annual contributions of the Parties have been kept at a level similar to those in the 2006-2008 budget.[80]

In the medium term plan for 2009-2014, which was also decided on at the COP9 meeting, the 2012-2014 budget does show an increase.[81] However, these figures still require final adoption at the COP10 meeting in 2011.

It appears that not all Parties pay their contribution on time and that 18 Parties are three years or more behind. These Parties are no longer eligible to vote, 'except under exceptional and unavoidable circumstances'.[82]

There are clear indications that the CMS budget is too limited for the Secretariat and the Scientific Council to adequately perform the tasks assigned to them. The Secretariat declares in its latest Overview that 'there is little doubt that the Secretariat's permanent scientific and technical capacity is seriously under-resourced both in absolute terms, and by comparison with other Conventions'.[83] The Report of the Fourteenth Meeting of the Scientific Council reveals that the council has been requested to cut costs, since there had been insufficient funds to offer support to all eligible members to attend its meetings.[84] Finally, it is stated in the Strategic Plan 2006-2011 that the convention is 'suffering from a great mismatch between available resources and the tasks conferred on its implementing bodies by the Conference of the Parties' and that 'the future financing of the Convention's programmes and the need to diversify its sources of income are a principal challenge for the next six years'.[85] The difficulties regarding the financial resources of the CMS have also been pointed out by Caddell.[86]

viii. Conclusion

The institutional framework of the convention is well-established and meetings of the various institutional bodies take place regularly. The Secretariat seems to be able to carry out an impressive amount of work considering its limited resources, but it appears that it needs an increase in staff numbers to be able to perform all the tasks assigned to it.

However, the financial resources of the convention are extremely tight and an increase in the Secretariat's capacity does not seem likely for the moment. The Scientific Council's resources also appear to be insufficient. Although the increased additional funds over the 2006-2008 triennium will have alleviated some pressing problems, those were ad hoc in

nature and raising them demanded much of the Secretariat's time. It is therefore especially disappointing that the budget for 2009-2011 has (even in nominal terms) not been increased. The preliminary budget for 2012-2014, which still has to be adopted by the COP in 2011, does not show a major improvement (in real terms) either. The shortage of funding does impair the operation and implementation of the CMS.

The contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.3 Element 3: Environmental NGOs and Other Stakeholder Groups

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.*

In Article IX of the convention it has been laid down that the Secretariat of the convention 'may be assisted by suitable intergovernmental or non-governmental, international or national agencies and bodies technically qualified in protection, conservation and management of wild animals'.[87] Representatives of the UN and its agencies, states that are not a Party to the convention as well as the bodies of the Agreements signed under the convention can participate in COP meetings as observers.[88] Bodies and agencies such as international and national environmental NGOs and national and international governmental agencies that are 'technically qualified in protection, conservation and management of migratory species' are also allowed to be represented by an observer at the COP meetings, unless at least one-third of the Parties present object.[89] National NGOs first require approval from the state in whose territory they are located.[90] Observers do not have voting rights,[91] and those from non-governmental organisations have to pay a participation fee.[92]

Observers are not supposed to attend the meetings of the Standing Committee or the Scientific Council, unless they have been invited by the Chairperson.[93]

The significance of cooperation with other stakeholders has been given more prominence in the latest Strategic Plan 2006-2011.[94] Its third objective reads 'to broaden awareness and enhance engagement in the conservation of migratory species amongst key actors'.[95] The targets that were developed for this objective reflect the convention's intention to strengthen contacts with a variety of stakeholder groups.[96]

The Secretariat considers liaising with international organisations as one of its key functions,[97] and the CMS is already cooperating closely with various different stakeholders. Cooperation agreements have been signed with many of them. The most important stakeholders and the CMS's relation with them will be discussed in more detail below.

<u>i. Environmental NGOs</u>

The importance of cooperation with environmental NGOs has been laid down in Recommendation 4.6, which was adopted in 1994.[98] In this recommendation the Secretariat is requested to organise periodic briefing sessions with NGOs in order to involve them in the convention and to solicit their support.[99] In the CMS Strategic Plan 2006-2011, the importance of partnerships with 'major non-governmental organizations' is mentioned.

It is further indicated that in relation to this cooperation 'great potential remains to be tapped'.[100]

The IUCN has been closely involved in the CMS from the start. The IUCN's Law Commission and its Environmental Law Centre developed the text for the convention and have supported the drafting of several of CMS's daughter agreements as well. The IUCN and the CMS work together on various projects and the extensive species knowledge that the IUCN has accumulated over the years is greatly benefiting the CMS. In 2003, a Memorandum of Understanding was signed between the two.[101]

Besides the close relation with the IUCN, cooperation agreements have been signed with the following environmental NGOs: BirdLife International, Global Nature Fund, International Crane Foundation, International Fund for Animal Welfare, Saiga Conservation Alliance, Sahara Conservation Fund, Wildlife Conservation Society, Whale and Dolphin Conservation Society, Wetlands International and the Zoological Society of London.[102] The cooperation involves the development of conservation policy and/or the support for specific projects and fieldwork.[103] Some environmental NGOs, such as BirdLife International, the IUCN, Wetlands International and the WWF have contributed to the special publication marking the 25th anniversary of the convention in which each of them explains its relationship to the convention.[104] It appears that many of these NGOs are also involved in the implementation of the daughter agreements concluded under the CMS.

Although no cooperation agreement has been signed with the WWF, it does assist the Secretariat from time to time,[105] and sends one or more representatives to the COP meetings. Most international environmental NGOs attend these meetings and some are also present at the meetings of the Standing Committee and the Scientific Council.

Gillespie has pointed out in relation to the participation in the CMS COP meetings that several environmental NGOs are impeded to participate due to the distinction that is made between international and national NGOs (the latter need approval from the state in whose territory they are based), the requirement to be 'technically qualified' instead of just 'qualified' and the lack of financial assistance to visit the COP meetings.[106]

Cooperation agreements have also been signed with some NGOs that can not be described as primarily 'environmental' but who do play a role in the conservation of migratory species. Examples are the Alliance of Marine Mammal Parks and Aquariums, the International Council for Game and Wildlife Conservation and the World Association of Zoos and Aquariums.

ii. Scientists

Many of the environmental NGOs mentioned provide the convention with important scientific information, which is acknowledged in the Strategic Plan 2006-2011.[107] The IUCN is probably the most important organisation in this respect. In the Memorandum of Cooperation between the Secretariat of the CMS and the IUCN it is pointed out that the latter will give scientific and technical advice on the status and conservation needs of particular migratory species,[108] prepare scientific evaluations in relation to proposed amendments of the appendices,[109] and provide general research assistance.[110]

Some other environmental NGOs with whom the CMS has signed a cooperation agreement have a strong scientific basis as well. Examples are the Saiga Conservation Alliance, the Wildlife Conservation Society and the Zoological Society of London. A cooperation agreement has also been signed with the National Oceanic and Atmospheric

Administration (NOAA), which is the US federal agency monitoring the condition of the oceans and the atmosphere.

The CMS operates under the auspices of UNEP, which also offers its technical and scientific expertise to the convention.[111]

In order to optimise the convention's access to relevant data on migratory species and biodiversity issues in general, a Memorandum of Cooperation has been signed with the Global Biodiversity Information Facility (GBIF). This agreement will enhance the convention's own database on migratory species, the Global Registry on Migratory Species or GROMS.

iii. Bodies of Biodiversity-Related and Other Environmental Conventions

It has been laid down in the convention that the Secretariat must liaise with 'other international organisations concerned with migratory species',[112] and the interest of the CMS to cooperate with other biodiversity-related conventions and international organisations is reaffirmed in Resolution 7.9.[113]

The CMS Strategic Plan 2006-2011 emphasises that the CMS has entered collaborative relationships with other conventions 'to maximise synergies'.[114] At the fourth COP meeting in 1994, it was decided that a partnership should be established with the Secretariat of the Convention on Biological Diversity (CBD).[115] This resulted in a Memorandum of Cooperation in 1996 and a Joint Work Programme 2002-2005 and 2006-2008.[116] The CBD has declared the CMS its lead partner on migratory species conservation.[117] Cooperation agreements have also been signed with the other three biodiversity-related conventions assessed in this study. A Joint Work Plan 2003-2005 has been added to the Memorandum of Understanding that was signed with the Ramsar Secretariat in 1997.[118] The CMS also participates in the Biodiversity Liaison Group, with the objective to enhance the cooperation between the biodiversity-related conventions in relation to their implementation.[119]

Cooperation agreements have also been signed with the International Whaling Commission, which was set up under the International Convention for the Regulation of Whaling, as well as with the secretariats of the United Nations Convention to Combat Desertification, the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention), the International Tropical Timber Organisation and the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention). An agreement has also been signed with the Western Hemisphere Migratory Species Initiative, which is a loose cooperation between states and environmental NGOs of the Americas focusing on the conservation of migratory species in this region.[120] In 2009, a Memorandum of Cooperation was signed with the Secretariat of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). Unfortunately, the cooperation agreements are not available on the CMS website.

It is not surprising that close relations often exist between the bodies of the CMS and those of its daughter agreements. As discussed in sub-section 2.2, the future structure of this cooperation is now under discussion.

iv. International and Regional Organisations

The CMS operates under the auspices of UNEP, which runs the Secretariat, and close cooperation between the two is self-evident. This collaboration covers a wide range of issues, including projects and programmes in relation to migratory species, capacity building activities and the creation of public awareness. UNEP further offers administrative and financial support to the CMS as well as scientific and technical expertise.[121]

A cooperation agreement has been signed with the Food and Agriculture Organisation (FAO).[122]

v. Corporate Sector

A former Executive Secretary of the CMS, Arnulf Müller-Helmbrecht, has recently stated that 'initial attempts to find allies in the private sector have taught us that fundraising is not the Convention's forte'.[123] To attract more funding from the corporate sector, Friends of CMS has been launched, which is a German based non-profit organisation that aims to raise funds for the CMS.[124] Meanwhile some companies, such as the TUI (European travel organisation), Lufthansa and National Geographic Deutschland, have made donations.[125]

The Guidelines for Acceptance of Financial Contributions were adopted in 1997 and apply to non-governmental institutions including the corporate sector. It has been laid down in the guidelines that the Standing Committee must approve each donor and that there should be no risk of conflict of interests or corruption. A donor needs to have an environmentally friendly attitude and the purpose of the donation should be in line with the policies and aims of the CMS.[126]

vi. Conclusion

Both the convention and the Rules of Procedure of the bodies of the CMS are not the most welcoming regarding the participation of environmental NGOs and other stakeholders. In practice, the situation appears to be more flexible and cooperation does exist between the CMS and a wide variety of environmental NGOs and other organisations. Cooperation agreements have been signed with many of them. The IUCN is probably the organisation that is most closely involved, but environmental NGOs such as BirdLife International and Wetlands International have strong connections with the CMS as well. The IUCN and other NGOs offer important scientific support.

Memoranda of Cooperation or Understanding have been signed with the other four biodiversity-related conventions assessed in this study and Joint Work Plans have been developed with the CBD and the Ramsar Convention. The importance of having close links with these conventions, and especially with the CBD, has been acknowledged at an early stage. Cooperation agreements have been signed with other relevant environmental conventions as well. These documents have, however, not been made publicly available on the CMS website.

Relations with the corporate sector are still in its infancy, but there is a definite intention to further develop the opportunities these may offer. The establishment of Friends of CMS may help to achieve this.

Although some further improvements could be made, the COP is clearly facilitating cooperation with environmental NGOs and other stakeholders. The contribution of this element to the effectiveness of the convention is therefore considered to be **satisfactory**.

2.4 Element 4: Objectives, Measures and Timing

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.*

The convention's objective(s) and measure s should address the underlying problem. However, the problem that gave rise to this convention has not been clearly defined in the convention. The Preamble of the CMS states that it is 'concerned particularly with those species of wild animals that migrate across or outside national jurisdictional boundaries', but it does not explain why this is the case.[127] Somewhat more to the point is Article II, paragraph 2 in which it has been laid down that 'Parties acknowledge the need to take action to avoid any migratory species becoming endangered'. The Strategic Plan 2000-2005 is silent on the issue,[128] but its successor describes in some detail the threats faced by migratory species and their special conservation needs.[129] The following elements appear to be significant:

— Human pressure on migratory species is often intense and can lead to particularly strong negative impacts on the populations of migratory animals as large numbers of individuals concentrate at certain traditionally used sites.[130]
— Intense human pressure can take the form of unsustainable hunting and fishing practices, incidental capture in fisheries, destruction or modification of wetlands, forests and grasslands, introduction of alien species, harmful effects of industrial and agricultural pollutants, climate change, desertification, barriers such as dams, fences, power lines and wind farms, communication towers and electricity transmission lines and pylons.[131]
— As a consequence, there is a growing number of migratory species that face a serious risk of becoming extinct.[132]
— Migratory species have special conservation needs due to their unique behaviour and particular ecological requirements.[133]

i. The Objectives

The objectives of the convention are laid down in the convention as 'Fundamental Principles'.[134] The first objective is to pay 'special attention to migratory species the conservation status of which is unfavourable, and taking individually or in co-operation appropriate and necessary steps to conserve such species and their habitat'.[135] The second objective is 'to avoid any migratory species becoming endangered'.[136] Besides the definition of 'endangered' provided in Article I, paragraph 1 (e) of the convention, the COP has introduced an additional definition of this term aiming to 'achieve maximum compatibility with the IUCN "Categories of Threat", whilst still keeping within the definition given in

Article I, paragraph 1 (e) of the Convention text'.[137] The term 'endangered' in this second definition means 'facing a very high risk of extinction in the wild in the near future'.[138]

Comparing this definition with the one used by the IUCN, it should be noted that the term 'endangered' as defined by the IUCN is indeed 'facing a very high risk of extinction in the wild', but without 'in the near future', and that the IUCN has added a long list of criteria that further specify the definition. To identify the so-called 'threatened categories' the IUCN is further using the terms 'critically endangered' and 'vulnerable', which have respectively been defined as 'facing an extreme risk of extinction in the wild' and 'facing a high risk of extinction in the wild'. Despite a recommendation from the CMS Scientific Council to use the IUCN Red List Categories for the CMS Appendices, it appears that the CMS COP has not (yet) adopted this proposal.[139]

For the CMS Strategic Plan 2006-2011 the following goal has been set: 'To ensure the favourable conservation status of migratory species, thereby contributing to global sustainability'.[140]

The goal laid down in the Strategic Plan appears to be more ambitious than the objectives defined in the convention. Whereas the convention focuses on giving attention to migratory species that already have an unfavourable conservation status and on preventing that any migratory species will become endangered, the Strategic Plan seems to have adopted a more pro-active approach by aiming to ensure that all migratory species have a favourable conservation status. The definitions of 'conservation status of a migratory species' and 'favourable conservation status' are laid down in the convention.[141]

One of the world's leading experts on endangered (migratory) species, David Wilcove,[142] has proclaimed that migration should be seen as a phenomenon of abundance and that migratory species should be protected as such as opposed to ensuring the prevention of extinction.[143] This seems to be in line with the definition of 'favourable conservation status' in the convention, which includes as one of its conditions that 'the distribution and abundance of the migratory species [should] approach historic coverage and levels'.[144] Following this definition of 'favourable conservation status', the goal laid down in the CMS Strategic Plan 2006-2011 also appears to be in conformity with the expert's statement. This, however, does not go for the objectives laid down in the convention.

The term 'conservation' has not been defined.

ii. Measures and Timing

The following three principal measures to realise the objectives have been laid down in the convention: Firstly, Parties should promote, cooperate in and support research relating to migratory species. Secondly, they shall endeavour to provide immediate protection for migratory species that are included in Appendix I. Thirdly, they shall endeavour to conclude AGREEMENTS covering the conservation and management of migratory species included in Appendix II.[145] It is obvious that the inclusion of the term 'endeavour' in these measures limits their strength. Terms like 'endeavour', 'where possible' and 'to the extent feasible and appropriate' can be found throughout the convention.[146]

The convention does not elaborate further upon the first measure other than to state that the Scientific Council is supposed to play a role in relation to the research that could be relevant for migratory species.[147]

The measures to protect the Appendix I species, the migratory species that are endangered,[148] have been worked out in some detail in the convention.[149] In relation to

Appendix I species, the range states shall endeavour 'to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction',[150] 'to prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species',[151] and 'to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced exotic species'.[152] Furthermore, the range states must prohibit the taking of animals belonging to such species,[153] but there are some exceptions to this rule, which will be discussed in sub-section 2.6. Notwithstanding these exceptions, some commentators have stated that this provision is such a clear legal obligation that it has direct effect.[154] The COP may recommend further measures to benefit the species.[155]

It should be noted in relation to the strict measures mentioned that Parties themselves may decide whether or not they are a range state for species listed in the appendices.[156] Van Hoorick has stated that this provision is a serious shortcoming in the convention.[157]

'Migratory species which have an unfavourable conservation status and which require international agreements for their conservation and management, as well as those which have a conservation status which would significantly benefit from the international cooperation that could be achieved by an international agreement', are listed in Appendix II.[158] No direct protection is offered to these species, but Parties that are range states of these species 'shall endeavour to conclude AGREEMENTS where these would benefit the species'.[159] Priority should be given to those species that already have an unfavourable conservation status.[160] It is possible that a migratory species is listed in both appendices.[161]

Two types of international agreements are mentioned in the convention. The above mentioned more formal type of international agreement, which is referred to as 'AGREEMENT' (upper case),[162] and the 'agreement' (lower case), which is more flexible.[163]

The first type of agreement, the AGREEMENT, usually deals with more than one species,[164] should cover the whole of the range of the species concerned,[165] and should include a list of issues that are identified in the convention, such as periodic review of the conservation status of the species concerned, conservation and management plans, and exchange of information.[166] An AGREEMENT is open to accession by all range states of the species concerned, including those that are not a Party to the convention.[167] The object of each AGREEMENT should be 'to restore the migratory species concerned to a favourable conservation status or to maintain it in such a status'.[168]

The second type of international agreement, the 'agreement' (lower case), makes it possible to protect just one migratory species, or to protect species that are not listed in the appendices. It has further been decided that it is not required for an agreement to cover the whole of the range of the migratory species, nor that it necessarily needs to be open to accession by all range states if this would adversely affect its conclusion or implementation.[169] Both types of agreement discussed so far are legally binding upon the Parties and need to be ratified.

A third instrument, the memorandum of understanding (MOU), was introduced at a later stage. The MOU, which is also based on Article IV, paragraph 4, is not legally binding and as a consequence measures can be taken relatively quickly, since the lengthy ratification procedures can be avoided.[170] The MOU is now the most frequently used form of agreement.[171]

An additional instrument that has been introduced is the so-called Action Plan. An Action Plan is initiated and prepared by the Secretariat with the aim to improve the conservation of certain migratory species for which an AGREEMENT, agreement or MOU is not yet feasible. The range states have to agree with the plan, but do not need to sign it. A subsequent step could be the conversion of the Action Plan into an Agreement.[172]

The fact that this convention directs the use of additional AGREEMENTS or agreements for species that are listed in Appendix II, makes it in part a framework convention. The agreements usually operate quite independently from the CMS, but the COP must still consider reports concerning AGREEMENTS,[173], review the progress that is made under AGREEMENTS,[174] while the Secretariat should receive a copy of each AGREEMENT,[175] and is supposed to liaise with the bodies set up under AGREEMENTS.[176] It has been decided that except for Article VII, paragraph 5(e), these provisions also apply to agreements.[177]

The independence of the daughter agreements from the CMS has led to some debate within the convention. In a document prepared for COP9 in 2008, it has been argued that the CMS suffers the adverse consequences, since it increases costs, which deters Parties from joining, and it diminishes its value by creating the impression that the convention 'has no conservation action content of its own'.[178] At COP9, it was decided to set up a working group that should study this issue and make recommendations to the COP.[179]

The chosen system of concluding additional AGREEMENTS or agreements has been criticised by several commentators. It has been pointed out that the two types of agreements have caused much confusion in practice, delaying the conclusion and implementation of these instruments,[180] and that in relation to the conclusion of separate AGREEMENTS 'such actions take a lot of political will, are time-consuming and demand considerable funds'.[181] The Article IV, paragraph 4 agreements offer more flexibility and are generally perceived to be the 'more attractive option'.[182]

Both appendices may be amended at COP meetings by a two-thirds majority of Parties present and voting.[183] Parties are able to make a reservation with respect to an amendment.[184]

Parties are also supposed to submit national reports to the convention and carry out monitoring and research.[185]

At each COP meeting, the conservation status of migratory species may be reviewed, especially of those listed in the appendices,[186] and recommendations can be made to improve the conservation status of migratory species.[187] The COP can also decide to take additional measures to implement the objectives of the convention.[188] Several measures have been agreed upon over the years in the form of resolutions and recommendations, of which the following are the most significant.

Referring to Article VII, the COP decided in 1991 to establish a formal review process at each COP meeting for a selected number of species listed in Appendix I, with the intention to introduce initiatives that would benefit these species.[189] The Secretariat is supposed to coordinate the review with the assistance of the Scientific Council and other bodies. In the same resolution the so-called 'concerted actions' for selected Appendix I species were introduced, which actions are supposed to be carried out by the Parties. It appears that the Scientific Council makes the recommendation which species to select.[190]

In 1997, a similar procedure, referred to as 'cooperative actions', was introduced for Appendix II species.[191] It concerns species that are not or not yet the object of an Article IV AGREEMENT or agreement, but which require urgent cooperation at the international level for their conservation and management.[192] The Scientific Council also makes the

recommendation for the selection of these species. However, it was recently noted by Marco Barbieri, who is a member of the CMS Secretariat, that in relation to the cooperative actions for Appendix II species 'there is a lack of a common understanding of the procedures' and 'inconsistencies in terms of the reasons for the listing of the species'.[193]

A resolution concerning the importance of impact assessments in relation to projects, programmes and policies that can have a detrimental effect on migratory species was adopted by the COP in 2002.[194] In it, Parties are urged to include environmental impact assessments or strategic environmental assessments where relevant, and in doing so make use of the guidelines on this issue that were adopted by the COP of the Convention on Biological Diversity.[195]

At the same COP meeting, resolutions were adopted on other important issues affecting migratory species such as oil pollution, electrocution, wind turbines and by-catch. The resolution dealing with oil pollution acknowledges that accidental and other oil spills have a negative impact on migratory species and requests Parties to take a number of actions to control oil spillages, such as the implementation and enforcement of strict environmental protection legislation, the implementation of a monitoring process to assess the impacts of oil pollution on migratory species and the development of an adequate response system.[196]

The problem of the electrocution of migratory birds has also been dealt with by the COP.[197] It appears that, worldwide, electricity transmission lines, conductors and towers are causing death and injury to large bird species, including migratory species, while technical solutions are available to minimise this.[198] The resolution addressing this problem calls on Parties to implement these techniques.

The negative impact of wind turbines on migratory mammal as well as bird species is dealt with in resolution 7.5, in which it has been laid down that before the erection of these turbines the impact on migratory species should be evaluated and that once installed the effects on migratory species ought to be monitored.[199]

It is stated in Recommendation 7.2 that 'by-catch remains one of the major causes of mortality of migratory species from human activities in the marine environment'.[200] This concern is reiterated in 2005 in Resolution 8.14 and in 2008 in Resolution 9.18. Animals such as seabirds, sharks, turtles, marine mammals and sturgeons are especially affected. At the COP meeting in 2005, a resolution on this topic was adopted inviting Parties to implement the guidelines and action plans developed by FAO on this issue.[201]

The effects of climate change on migratory species is another matter that was examined at the COP meeting in 2005,[202] and again in 2008.[203] In the resolution that was adopted in 2005, Parties (and non-Party range states) are requested 'to implement, as appropriate, adaptation measures that would help reduce the foreseeable adverse effects of climate change on migratory species'.[204] The resolution of 2008 makes these measures more specific.

At the same meeting, a resolution on highly pathogenic avian influenza (HPAI) was also adopted.[205] This disease has affected wild as well as domesticated birds and could mutate into a form that would be transmissible between humans. So far, there have only been a limited number of human infections with the latest strain of HPAI. The resolution indicates that culling of wild bird populations is not the solution and that the focus should be on long term monitoring as well as further research.

The Scientific Council should play an important role in the implementation of most of the resolutions mentioned, which are mainly advisory in nature and do not contain strict obligations.

Resolution 8.18 is also of interest, since it focuses on the integration of migratory species into national biodiversity strategies and action plans and into on-going and future programmes of work under the CBD. Guidance as to how to implement this resolution is attached in Annex I, while the type of information on migratory species that should be considered has been laid down in Annex II and a copy of the CBD-CMS Joint Work Programme 2006-2008 in Annex III.

The latest CMS Strategic Plan 2006-2011 was adopted in 2005,[206] and succeeded the Strategic Plan 2000-2005.[207] The four main objectives in the CMS Strategic Plan 2006-2011 are:

— To ensure that the conservation and management of migratory species is based on the best available information;
— To ensure that migratory species benefit from the best possible conservation measures;
— To broaden awareness and enhance engagement in the conservation of migratory species amongst key actors;
— To reinforce the CMS's overarching and unifying role in the conservation and management of migratory species.

Several targets have been set for each objective and one or more indicators have been developed for each objective and target.[208] In contrast to the measures laid down in the convention and to the resolutions and the previous Strategic Plan, a time frame has been attached to the objectives and targets in this Strategic Plan and it also provides for a mid-term and a final review.

iii. Conclusion

There appears to be some mismatch between the objectives of the convention and its measures. The objectives focus on the conservation of those migratory species that have an unfavourable conservation status and on the prevention of migratory species becoming endangered. The goal defined in the latest Strategic Plan is more ambitious by aiming to achieve a favourable conservation status for all migratory species. However, the relatively strict protection measures that have been laid down in Article III of the convention, only apply to Appendix I species, which are the species that are already endangered. At the same time it appears that a rather narrow definition of 'endangered' is used as a result of which only species that face a 'very high risk of extinction in the wild in the near future' are being listed. Since the conservation of the migratory species in Appendix I is the only direct obligation the Parties have signed up to, a widening of the definition to include all 'threatened categories' of the IUCN would have enhanced the convention's potential impact.

The protection of migratory species listed in Appendix II is dependent on additional agreements that first have to be concluded by the range states. Many migratory species listed in Appendix II are not covered for their range in agreements and thus lack protection. This is a serious and persistent shortcoming of the convention, because (1) it is unlikely that agreements will be signed for all listed species, (2) not all Parties (and non-Parties) that are range states may sign the agreement, especially since (3) Parties themselves decide if they

are a range state. If an agreement is not signed by all range states, the migratory species concerned may still be extremely vulnerable.

As indicated by several commentators, the conclusion of AGREEMENTS is time-consuming and a lot of political will of the Parties that are range states is required. Agreements such as the MOUs offer an alternative. It must be noted, however, that since the framework character of the convention has not been properly developed, the current arrangements between the CMS and most of its daughter agreements are rather loose. Overlap, additional costs and lack of unity are the likely result.

Another principal measure of the convention calling on Parties to promote, cooperate in and support research relating to migratory species, is short of substance and lacks practical value. The use of vague terminology throughout the convention further blunts its potential impact.

The resolutions that have been adopted by the COP at a later stage on several important topics are significant, but do not include firm commitments. The resolutions and recommendations dealing with the concerted actions for selected Appendix I species as well as the cooperative actions for certain Appendix II species lack clarity.

However, the latest CMS Strategic Plan 2006-2011 is a substantial improvement compared to its predecessor and does include clear objectives, targets, time frames and scheduled reviews. Even so, its actual value still has to be proven in the coming years.

In view of the size of the problems connected with the conservation of migratory species that the convention seeks to address, the objectives and measures laid down in the convention do not appear to be sufficient. The resolutions that were adopted by the COP at a later stage do not materially alter this position and the contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.5 Element 5: Implementation

Benchmark: *For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.*

The following items will be included in the assessment of this element: (i) the comprehensiveness of Appendix I, which lists migratory species that are endangered, and Appendix II, which lists migratory species with an unfavourable conservation status, (ii) the implementation by the Parties of the obligations as laid down in the convention, mainly concerning Appendix I species, (iii) the application of the review process for (listed) migratory species and the concerted actions for Appendix I species and cooperative actions for Appendix II species, (iv) the conclusion of AGREEMENTS and agreements concerning the protection of Appendix I and II species, (v) the implementation of the additional measures, including the first Strategic Plan, and (vi) the supervision of the implementation of the convention by the Secretariat.

i. The comprehensiveness of Appendix I and Appendix II

In 1994, 52 species were listed in Appendix I.[209] By 2008, this number had more than doubled. At the COP 9 meeting in 2008, 11 new species were added to Appendix I. Examples are the Bottlenose Dolphin (Black Sea population), the Irrawaddy Dolphin, the Atlantic Humpback Dolphin, the Egyptian Vulture and the Cheetah.[210] An exception in relation to the latter had to be made for Botswana, Zimbabwe and Namibia, since these countries have obtained quotas under CITES and do not intend to comply with the 'no taking' requirement under the CMS.[211] For these countries this species is now listed in Appendix II.

Not all endangered migratory species are yet listed in Appendix I. Many Parties have indicated in their national reports that they are a range state for one or more species that should be proposed for listing in Appendix I, but that this has not been done for various reasons, often of a financial or administrative nature.[212] For instance, Denmark, France and Germany state that the Corncrake should be proposed for listing in Appendix I, but that no steps have been taken. No reason for the lack of action is given.[213] Another indication that more species need to be listed in Appendix I appears from the annex to a 2007 report of the Working Group on Birds, which forms part of the CMS Scientific Council.[214] In this annex 34 species of birds are recommended to be investigated for possible listing in Appendix I. All of these migratory bird species are on the IUCN Red List and all occur in the territory of at least one Party to the CMS. At the COP 9 meeting, four of the 34 have indeed been listed in Appendix I.[215] In its Strategy Implementation Plan 2006-2011, the Scientific Council has prepared a list of actions, one of which is to 'prepare and maintain a list of species which meet the scientific criteria for listing on Appendix I (see CMS Res.5.3), but which have not yet been listed'.[216] This list has now been finalised,[217] but is not yet available.

The number of species listed in Appendix II is about 1,500, clearly exceeding the number in Appendix I.[218] At the COP 9 meeting in 2008, eleven new species were added to the list including the Mediterranean population of Bottlenose and Risso's Dolphin, the West African population of Clymene Dolphin, the African Wild Dog, and some shark species.[219] However, according to various Parties, many species are still missing in Appendix II as well.[220] In its Tabular Review of Implementation of the 2000-2005 Strategic Plan, the Secretariat confirms that in relation to Appendix II species 'very large gaps' remain in the CMS coverage, in taxonomic as well as geographic terms.[221]

Mirroring the action already taken for Appendix I species, the Scientific Council has included in its Strategy Implementation Plan 2006-2011 the preparation of a list of species 'which meet the scientific criteria for listing on Appendix II, but which have not yet been listed'.[222] This list should have been prepared by now, but appears not to be available on the website.[223]

About 70 species appear in both appendices.

ii. The implementation by the Parties of the obligations as laid down in the convention

There is only limited information available regarding the implementation by the Parties of the obligations laid down in the convention. The information provided by the national reports that Parties have to submit before each COP is the most important source.[224] The Secretariat incorporates this information in its Analysis and Synthesis of National Reports or 'synthesis report', which it prepares before each COP meeting. In 2005 and 2008, about half of the Parties submitted their reports,[225] but the reporting Parties are by no means always

the same ones. For instance, the Netherlands reported in 2008, but failed to do so in 2005 and 2002, while the European Community and Ireland did report in 2002, but not in 2005 and 2008 and Switzerland did report in 2002 and 2005, but not in 2008. Some Parties, such as Greece, have never reported so far.[226] As a consequence, the value of the synthesis reports is questionable.

Based on this (imperfect) information, the following could be said about the implementation of the different obligations under the convention.

In relation to the requirement to promote, cooperate in and support research relating to migratory species,[227] hardly any details are available. It appears that for the group of terrestrial mammals (bats are excluded) the level of monitoring is relatively high, but that for other groups, such as bats and marine mammals, it is quite low.[228] This issue will be looked at in more detail in sub-section 2.7.

The convention also requires Parties to conserve and restore habitats of Appendix I species.[229] Again, very few facts are available in relation to this point. It is stated in the latest synthesis report that most Parties take migratory species into account when establishing or managing protected areas.[230] About 65% of the national reports identified the most important sites in relation to migratory species.[231] The restoration of habitats for Appendix I species seems to be undertaken only occasionally.[232] Some Parties remarked that international cooperation would be essential to select protected areas for the development of international migratory corridors.[233]

Parties should also address adverse effects of activities or obstacles that impede or prevent the migration of the Appendix I species,[234] as well as prevent, reduce or control factors that are endangering or likely to further endanger the species.[235] Various resolutions deal with these requirements and the implementation of those will be discussed in paragraph (v) of this sub-section. One endangering factor that is explicitly mentioned in the convention is the introduction of exotic species.[236] So far, the COP has not dealt with this at all and it appears from the Secretariat's 2005 synthesis report that Parties have taken very little action on this issue.[237]

One of the most far-reaching obligations under the convention is the prohibition (with some exceptions) to take Appendix I species.[238] Parties need to introduce legislation for the correct implementation of this provision. The 2008 synthesis report prepared by the Secretariat indicates the percentages of Parties that have prohibited the taking by major animal group: birds 81%, marine mammals 69%, marine turtles 59%, terrestrial mammals 33%, bats 28% and other taxa 33%.[239] The lack of relevant legislation is acknowledged in the report.[240]

iii. The application of the review process and the concerted actions for Appendix I species and cooperative actions for Appendix II species

As discussed in the previous sub-section, the COP has decided that a number of Appendix I species would be selected at each COP meeting to be reviewed and to benefit from concerted actions, while certain Appendix II species would be selected to become the object of cooperative action.

It appears that a review of the Appendix I concerted action species has been carried out by UNEP-WCMC in 2004.[241] The taxonomic working groups also undertake reviews of the status of various animal groups on behalf of the Scientific Council.[242] More detailed information on this subject will be discussed in sub-section 2.7.

Over the years, the number of concerted action species has grown to currently about 50.[243] At each COP meeting, a number of new concerted action species are selected for the next triennium, but several of these have been on the list for many years. What specific concerted actions are taken for these species is often unclear. In its synthesis report of 2005, the Secretariat states that apparently less action is taken for some of these species than for other Appendix I species in for instance the areas of research and species and habitat protection.[244] The taxonomic working groups report on concerted actions, but not in a very coherent manner. The 2004 UNEP-WCMC Review of the Status and Conservation Actions for CMS Concerted Action Species indicates that the vast majority of Parties that are range state for these species do not take any action and that if action is taken it usually is on a national rather than concerted basis.[245] Concerted action, based on an action plan, has, however, been adopted for some species or groups of species. In a recent document the Secretariat discusses two concerted actions, the Sahelo-Saharan Antelope action plan, concerning six species and 14 range states,[246] as well as the Central Eurasian Aridland concerted action concerning (initially) three Appendix I species,[247] and 26 range states.[248] Other concerted actions mentioned by the various taxonomic working groups are for South American marine mammals (Chile, Peru), and Southern Andean Deer.[249] It appears that actual concerted action has only be initiated for a fraction of the Appendix I species that were selected for it.

The cooperative action instrument is aimed at those Appendix II species that have a very unfavourable conservation status and which require urgent cooperation at the international level but are not the object of an AGREEMENT or agreement.[250] The latest list of species that are designated for cooperative action numbers over 40.[251] There is no specific information available concerning any cooperative action that has been initiated. The Working Group on Terrestrial Mammals mentions in its 2007 report some 'cooperative action' for the West African Elephant, but since an MOU has been signed for this species this can not be regarded as a cooperative action as defined in the various recommendations on this topic.[252] The Scientific Council has acknowledged that the concept of 'cooperative action' is unclear and that its meaning and purpose have to be clarified.[253] It is further stated that for these species at least the monitoring of individual actions and at most the implementation of an action plan should take place.[254]

iv. The conclusion of AGREEMENTS and agreements concerning the protection of Appendix I and II species

Initially very few Article IV Agreements were concluded and it is only since the mid 1990's that this instrument has been deployed more frequently. In this paragraph, a chronological overview is provided of both Article IV, paragraph 3 AGREEMENTS and Article IV, paragraph 4 agreements.[255] The latter are often, but not always, concluded as Memoranda of Understanding. It will be indicated for each AGREEMENT/agreement when it entered into force, which species are involved, what its objectives are and whether all range states (Parties and non-Parties) have ratified or (in case of an MOU) signed it. Most AGREEMENTS/agreements have action plans in place and usually environmental NGOs and other stakeholders are involved in the implementation of these instruments. The fact that there are currently about 30 states that are a Party to one or more of these AGREEMENTS/agreements but not to the CMS has become an issue for the convention.[256] It is beyond the scope of this study to assess the effectiveness of these

AGREEMENTS/agreements individually. Besides, this would be somewhat premature, since most have only recently entered into force.[257]

Article IV, paragraph 3 AGREEMENTS:

1. Agreement on the Conservation of Populations of European Bats (EUROBATS)

This is the oldest of the Article IV, paragraph 3 AGREEMENTS. It entered into force on 16 January 1994. The aim of this AGREEMENT is to conserve European populations of bat species through legislation, conservation measures, research and public awareness. Of the 45 migratory as well as non-migratory bat species covered by the AGREEMENT, 30 are listed in Appendix II, whereas the remaining species are not listed in either appendix. Of the 49 range states, 39 are a Party to the CMS. A total of 32 Parties have ratified this AGREEMENT, all (but one) of them CMS Parties.[258]

2. Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)

This is one of the most far-reaching CMS agreements covering 255 waterbird species, both Appendix I and Appendix II species as well as species that are not listed in either appendix. Of the 119 range states, 63 are a Party to the AEWA of which 60 are also a Party to the CMS. It entered into force on 1 November 1999. The objective of this AGREEMENT is to conserve migratory waterbirds within the geographic area covering Africa, Europe and parts of Canada, Central Asia and the Middle East. Specific actions have been laid down in an Action Plan.[259]

3. Agreement on the Conservation of Albatrosses and Petrels (ACAP)

This is the latest CMS AGREEMENT, which entered into force on 1 February 2004. The aim of this AGREEMENT is to stop or reverse population declines by coordinating action between range states to mitigate known threats to albatross and petrel populations. Currently, 19 species of albatrosses and seven species of petrels are covered by ACAP. Most are listed in Appendix II, one is listed in Appendix I, whereas seven are not listed in either appendix. Of the 25 range states, 13 states have ratified this AGREEMENT, of which 12 are a Party to the CMS.[260]

Article IV, paragraph 4 agreements:

1. Agreement on the Conservation of Seals in the Wadden Sea

This is the first Article IV, paragraph 4 agreement. It entered into force on 1 October 1991. Concluded between the CMS Parties Denmark, Germany and the Netherlands, its objective is to achieve and maintain a favourable conservation status for the Common Seal, which suffered at that time from a deadly virus,[261] but has recovered since. The Seal Management Plan that has been agreed between the Parties also covers the Grey Seal. Both seal species are listed in Appendix II.[262]

2. Memorandum of Understanding concerning Conservation Measures for the Siberian Crane

The Memorandum of Understanding (MOU) concerning the Conservation Measures for the Siberian Crane came into effect on 1 July 1993, but was revised on 1 January 1999. The revised MOU extended coverage to a larger Eastern Asian population of Siberian Cranes. The Siberian Crane suffered from hunting and habitat deterioration and is listed in both CMS appendices. All 12 range states, with the exception of Japan, have signed the MOU. Six of them are a Party to the CMS. The MOU and the conservation plans that have been agreed, aim to reduce the mortality of this species by protecting and managing their habitats. The GEF is financing a project to develop a wetland and flyway network to protect the Siberian Crane as well as other Asian migratory water birds.[263]

3. Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS)

This agreement entered into force on 29 March 1994, but was later extended to cover parts of the North Atlantic and to incorporate waters adjacent to Ireland, Portugal and Spain. The new agreement came into force on 3 February 2008. The aim of the agreement is to conserve all small cetaceans in this area that belong to the *Odontoceti* suborder also known as the toothed whales (the other suborder comprises the *Mysticeti,* or baleen whales) The specific species are not identified in the agreement, but examples appear to be the Harbour Porpoise, the Bottlenosed Dolphin, the Common Dolphin, the White-beaked Dolphin, the Atlantic White-sided Dolphin, the Striped Dolphin, the Risso's Dolphin, the Killer Whale, the Long-finned Pilot Whale, the Northern Bottlenosed Whale and other beaked whales. Most (if not all) of these species are listed in CMS Appendix II. These species suffer from habitat loss, marine pollution, acoustic disturbances, and, most importantly, by-catch. Of the 18 range states (all CMS Parties except for Russia), 10 have ratified the original agreement, of which five have accepted the extended agreement. The three new range states, Ireland, Portugal and Spain, have not yet ratified the (extended) agreement.[264]

4. Memorandum of Understanding concerning Conservation Measures for the Slender-billed Curlew

It is estimated that less than 50 individuals are left of the Slender-billed Curlew, a species listed in both CMS appendices. The focus of the MOU and a CMS Action Plan is on saving this species from extinction. The MOU entered into force on 10 September 1994. The number of range states of this migratory shorebird is 31 (23 CMS Parties and eight non-Parties), although it might occur in a further 13 states. This large number of states is due to the fact that the migration range of this species extends to some 5-6,500 km. Only 18 of the range states have signed the MOU, of which 17 are a CMS Party.[265]

5. Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa

The aim of this MOU is to safeguard six marine turtle species in the area concerned that have declined in numbers due to excessive exploitation and the degradation of their

habitats. The species covered by the MOU, the Loggerhead Turtle, the Olive Ridley Turtle, the Kemp's Ridley, the Hawksbill Turtle, the Leatherback Turtle and the Green Turtle, are listed in both appendices. The MOU entered into force on 1 July 1999. The number of range states for these species is 26, of which 22 have signed the MOU (18 CMS Parties and four non-Parties).[266]

6. Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS)

This agreement covers large and small cetaceans that occur in the agreement area covering the Black Sea, the Mediterranean Sea and the Contiguous Atlantic Area. The aim of the agreement is to reduce threats to all cetaceans in these waters and to promote closer cooperation amongst the range states with a view to conserving all cetacean species present in the area. Nineteen species are specified in the annex to the agreement, two porpoises, five dolphins and 12 whales. Two are listed in Appendix I, eight are listed in Appendix II, three are listed in both CMS appendices, whereas six are not listed in either appendix. The agreement entered into effect on 1 June 2001. Of the 29 range states, 23 have ratified the agreement, 22 CMS Parties and one non-Party, whereas six other range states, three CMS Parties as well as three non-Parties have yet to ratify.[267]

7. Memorandum of Understanding on the Conservation and Management of the Middle-European Population of the Great Bustard

The Middle-European population of the Great Bustard has declined rapidly in recent years and the objective of the MOU is to conserve this species that is listed in both CMS appendices. The MOU came into effect on 1 June 2001. Of the 17 range states, 12 have signed this agreement, all of them CMS Parties.[268]

8. Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (IOSEA)

The conservation of marine turtles is a global challenge and the Indian Ocean and South-East Asian region is an important area in this respect. This MOU entered into force on 1 September 2001 and covers six species of marine turtle, which are all listed in both CMS appendices (the Loggerhead Turtle, the Olive Ridley Turtle, the Green Turtle, the Hawksbill Turtle, the Leatherback Turtle, the Flatback Turtle). The aim of the MOU is to conserve these species and 44 range states (of which 23 are a Party to the CMS) have been identified, of which 30 (including 20 CMS Parties) have signed the MOU.[269]

9. Memorandum of Understanding concerning Conservation and Restoration of the Bukhara Deer

This MOU entered into force on 16 May 2002 with the objective to conserve the Bukhara Deer, which is listed in both CMS appendices, and save it from extinction. The MOU has been signed by all four range states, Kazakhstan, Tajikistan, Uzbekistan and Turkmenistan of which only the latter is not a Party to the CMS.[270]

10. Memorandum of Understanding concerning Conservation Measures for the Aquatic Warbler

The population of this small water bird, which breeds in Belarus, Poland and the Ukraine and overwinters in sub-Saharan Africa, has declined by about 40% in the past ten years mainly due to loss of habitat. This species is listed in both CMS appendices. Of the 22 range states (of which 21 are a CMS Party), 14 states have signed this MOU (all CMS Parties) with the aim to provide strict protection for the Aquatic Warbler and to conserve the wetland habitats that are essential for its survival. It entered into force on 30 April 2003.[271]

11. Memorandum of Understanding concerning Conservation Measures for the West African Populations of the African Elephant

On 22 November 2005, an MOU was signed concerning the conservation of the West African populations of the African Elephant with the aim to prevent the demise of the remaining populations of the species, which is listed in Appendix II. All 13 range states (of which 12 are a CMS Party) have signed the MOU.[272]

12. Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region

The aim of this MOU is to achieve and maintain a favourable conservation status for all cetaceans and their habitats occurring in the Pacific Islands region. The species are not specified and as a consequence their listing status is not fully clear. The MOU entered into force on 15 September 2006. A total of 22 range states have been identified, of which six are a Party to the CMS. The MOU has been signed by 11 states, including the six CMS Parties.[273]

13. Memorandum of Understanding concerning Conservation, Restoration and Sustainable Use of the Saiga Antelope

Of the millions of Saiga Antelopes that once roamed the Central Asian steppe just 60,000 remain. This enormous decline is mainly caused by unsustainable hunting. The aim of the MOU, which has been signed by all the four range states, Kazakhstan, Turkmenistan, Uzbekistan and the Russian Federation, is to cooperate and reinforce efforts to conserve and restore the remaining populations of this species, which is listed in Appendix II. Two of the range states, Kazakhstan and Uzbekistan, are CMS Parties. The MOU was signed on 24 September 2006.[274]

14. Memorandum of Understanding concerning Conservation Measures for the Ruddy-headed Goose

Of the two populations of this species, the one occurring in Argentina and Chile is in danger of extinction since only 900-1,000 geese remain. It is listed in both CMS appendices. The two range states, both CMS Parties, have signed an MOU on 21 November 2006 with the objective to improve the conservation of this population.[275]

15. Memorandum of Understanding on the Conservation of Southern South American Migratory Grassland Bird Species and Their Habitats

This MOU was signed to improve the conservation status of several migratory bird species that depend on the grasslands of Southern South America. Some of these species, such as the Zelich's Seedeater, are listed in Appendix I, some species, such as the Eskimo Curlew, are listed in both CMS appendices, while others, such as the Bearded Tachuri, are listed in Appendix II. The range states concerned are Argentina, Bolivia, Brazil, Paraguay and Uruguay, which, except for Brazil, are all CMS Parties. All range states have signed the MOU, which came into effect on 26 August 2007.[276]

16. Memorandum of Understanding concerning Conservation Measures for the Eastern Atlantic Populations of the Mediterranean Monk Seal

This MOU was signed on 18 October 2007 to improve the conservation status and the habitat of the Eastern Atlantic populations of the Mediterranean Monk Seal. This critically endangered species, of which about 500 remain, is listed in both CMS appendices. The four range states, Mauritania, Morocco, Portugal and Spain, which are all CMS Parties, have signed the MOU.[277]

17. Memorandum of Understanding on the Conservation and Management of Dugongs and Their Habitats throughout their Range

The Dugong is listed in Appendix II and its range counts 42 states (19 Parties and 23 non-Parties), of which 11 (eight CMS Parties and three non-Parties) have signed the MOU that aims to conserve and manage the Dugong populations. The MOU became effective on 31 October 2007.[278]

18. Agreement on the Conservation of Gorillas and their Habitats (Gorilla Agreement)

The CMS has cooperated with the Great Ape Survival Project (GRASP) for the conclusion of this agreement, which entered into force on 1 June 2008. GRASP is a partnership between states, international organisations such as UNEP and UNESCO, NGOs and the private sector with the objective to conserve the great apes. In relation to the gorilla species covered by this agreement, ten African range states are involved (two non-Parties) of which six (five CMS Parties and one non-Party) have now ratified the agreement. The agreement covers all species of gorilla, of which one, the Mountain Gorilla, is listed in Appendix I.[279]

19. Memorandum of Understanding Concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia

On 3 October 2008 this MOU was signed by 15 of the 29 range states (14 CMS Parties and one non-Party). Meanwhile, two additional CMS Parties have signed the MOU. Twenty-six of the range states are a CMS Party. The aim of this MOU is to conserve small cetaceans and the West African Manatee that can be found in the waters of West Africa. The Atlantic Humpback Dolphin, which is listed in Appendix II, is an example of a small cetacean occurring in these waters. The West African Manatee is also listed in Appendix II.[280]

20. Memorandum of Understanding concerning the Conservation of Migratory Birds of Prey in Africa and Eurasia

This MOU came into effect on 1 November 2008. Its aim is 'to take co-ordinated measures to achieve and maintain the favourable conservation status of birds of prey throughout their range and to reverse their decline when and where appropriate'.[281] Over 75 migratory birds of prey species are covered by the MOU, including the Osprey, the Red Kite and the Snowy Owl. Less than half of these species are listed in the CMS appendices. A total of 130 range states are involved including almost 100 CMS Parties. So far, the MOU has been signed by 29 states, of which 25 are a CMS Party.[282]

21. Memorandum of Understanding on the Conservation of High Andean Flamingos and Their Habitats

This MOU came into effect during the COP9 meeting in Rome on 4 December 2008. It concerns the conservation of two different species of flamingo, the Andean Flamingo and the Puna Flamingo, both listed in Appendix I. The four range states involved, Argentina, Bolivia, Chile and Peru, are all CMS Parties. Only Argentina has not yet signed the MOU.[283]

Various Agreements are still in the pipeline. The Secretariat has indicated that the COP must decide on a short-list of taxa that should get the highest priority for the development of Agreements as well as identify Parties that should take the lead in preparing these instruments, since many Parties seem hesitant to take the initiative.[284]

It should also be noted that of the 24 instruments discussed above, only seven have been ratified or signed by all range states,[285] while two others have been signed by all but one range states.[286] This means that most migratory species that are the subject of an AGREEMENT or agreement are only partially protected within their range, which could seriously diminish the potential benefits of the conservation measures taken.

v. The implementation of additional measures including the first Strategic Plan of the convention

As discussed in sub-section 2.4, resolutions have been adopted on the issues of environmental impact assessment, oil pollution, electrocution, wind turbines, by-catch and climate change. In relation to the implementation of these resolutions as well as the implementation of the first CMS Strategic Plan 2000-2005, the following should be noted:

It remains unclear to what extent Parties have implemented environmental impact assessment as part of their planning procedures, as laid down in Resolution 7.2. The Analysis and Synthesis of National Reports compiled by the Secretariat in 2008 reveals that 'twenty-one Parties reported that they carry out environmental impact assessments, with 13 Parties noting they are mandatory for development projects'.[287] The research that has been carried out on this subject indicates that well over 100 countries now require the use of environmental impact assessments. This would suggest that the numbers as reported by the Secretariat might be too low.[288]

In relation to the issue of oil pollution (Resolution 7.3),[289] the same synthesis report indicates that ten Parties have put contingency or mitigation plans in place and that some additional activities, such as the training of personnel, were also reported.[290]

On the implementation of Resolution 7.4, Electrocution of Migratory Birds, the document states that 16 Parties reported some form of action.[291] These actions included the introduction of legislation (six Parties), the cooperation with electrical companies (five Parties) and the partial or total insulation or underground re-routing of powerlines (three Parties). Some Parties appeared to be carrying out research in this area (three Parties).

The implementation of the resolution on Wind Turbines and Migratory Species (Resolution 7.5) shows a similar pattern. The Secretariat reports that 16 Parties have taken some action on this subject, of which 12 require environmental impact assessments to be carried out for wind turbine proposals. Some Parties referred to studies that have been carried out on this topic.[292]

The Secretariat received responses from 14 Parties in their 2008 national reports in relation to the problem of 'by-catch', and has included these in its synthesis report 2008.[293] It appears that the responses came mainly from developed countries, which seem to have introduced some measures to mitigate the adverse impact of 'by-catch' on migratory species. Since it became an CMS issue in 1999, it 'remains one of the major causes of mortality of listed migratory species from human activities in the marine environment'.[294]

The first resolution on climate change was adopted in 2005,[295] and 13 Parties stated in their national reports that they have taken some action to address the consequences of climate change for migratory species.[296] The Parties that reported some action, mostly in the area of monitoring and research, are mainly developed countries. Five Parties stated that they have prepared a strategy or action plan on climate change.[297] At the COP9 meeting, the COP adopted a resolution urging Parties to take further action 'despite the remaining uncertainty surrounding the full scale of the impacts of climate change on migratory species'.[298]

The CMS Strategic Plan 2000-2005 has been reviewed by the Secretariat.[299] In connection with this review, the Standing Committee has expressed doubts about the usefulness of the Strategic Plan as it did not contain timetables or set targets,[300] while the COP expressed its concern about the limited information available.[301] The outcomes regarding the objectives in the Secretariat's review are mixed. The best results were found in relation to objective 4 (To Facilitate and Improve Implementation of the Convention), followed by objective 1 (To Promote the Conservation of Migratory Species Included in Major Animal Groups Listed in the CMS Appendices), whereas the results concerning the second (To Focus and Prioritise Conservation Actions for Migratory Species) and third objective (To Enhance Global Membership in CMS Through Targeted Promotion of the Convention's Aims) were judged less positively.[302]

vi. The supervision of the implementation of the convention by the Secretariat

It appears that the Secretariat is not actively supervising the implementation of the convention. It is mainly depending on information submitted by the Parties in their national reports, which are its most important information source.[303] So far, about half the Parties submit their national reports. Other valuable sources of information available to the Secretariat are project reports, as well as the Scientific Council and the specialist agencies associated with the CMS, including the institutions of the AGREEMENTS and agreements.[304]

It seems that little pressure is exerted on Parties to submit (sufficiently completed) national reports. The Secretariat has stated that 'it may be helpful for the Secretariat to ask

non-reporting Parties to clarify what factors contribute to their failure to report, or to do so on time'.[305] The Standing Committee has acknowledged that some Parties have shown a lack of conservation activities,[306] but no action directed at these Parties has been taken.

vii. Conclusion

The major obstacle in relation to the assessment of this element is that the available information is limited and fragmented. The fact that only half the Parties submit their national reports, even without considering their comprehensiveness, already indicates the low priority that Parties generally accord to the CMS. Without sufficient up-to-date information on various implementation items discussed in this sub-section, it is impossible to give an accurate account of the implementation by the Parties. However, it seems reasonable to conclude that very few, if any, could claim to have fully implemented the CMS.

From the scanty information available the following conclusions can be drawn: (1) there are still serious gaps in both appendices, which means that many migratory species that are endangered or have an unfavourable conservation status lack the protection of the CMS, (2) very few Parties have fully implemented the core provisions of the convention that should protect the endangered migratory species listed in Appendix I, (3) on the issue of control of invasive exotic species hardly any action seems to have been taken so far, (4) in relation to the concerted actions for selected Appendix I species and the cooperative actions for selected Appendix II species, the measures and their execution remain unclear, (5) the number of Article IV, paragraph 4 agreements has increased in recent years, but, as acknowledged by the Secretariat, the number should be much higher still, (6) of the 24 Agreements in place, only seven have been signed by all range states involved and another two by all but one, which means that the majority of these instruments only partly cover the relevant ranges, (7) the implementation of the resolutions on environmental impact assessment, oil pollution, electrocution, wind turbines, by-catch and climate change is in a preliminary stage, whereas on the other hand (8) the thorough review by the Secretariat of the Strategic Plan 2000-2005 should be seen as a positive step.

It is hard to escape the finding that the CMS Parties generally fail in their obligation to implement the CMS and that the convention lacks the active supervision by the Secretariat in relation to its implementation.

The contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.6 Element 6: Reservations, Derogations and Other Exceptions

Benchmark: *For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).*

i. Reservations

The convention precludes Parties from making general reservations.[307] However, Parties are allowed to make specific reservations with regard to any migratory species listed in the appendices of the convention. They can make this reservation when depositing their

instrument of ratification, acceptance, approval or accession,[308] or, at a later stage, regarding amendments made at the COP meetings.[309] Any reservation can be withdrawn.[310]

Currently, there appear to be seven Parties that have made at least one reservation each.[311] Norway has made the most reservations, nine in total: six for whale species, two for dolphin species and one for a shark species.[312] France and Cuba have made reservations in relation to some turtle species,[313] and the EC, together with Denmark and Norway, has made a reservation for the Basking Shark.[314] Argentina and Bolivia have made a reservation for the Vicuña. All these species are listed in Appendix I. No further clarifications are provided as to why these reservations are made.

It is stated in the CMS Family Guide that 'reservations do occur, but are quite rare'.[315]

ii. Derogations

Any Party that is a range state of a migratory species listed in Appendix I shall prohibit the taking of animals of such species, but Parties may derogate from this general rule if:[316]

— the taking is for scientific purposes;
— the taking is for the purpose of enhancing the propagation or survival of the affected species;
— the taking is to accommodate the needs of traditional subsistence users of such species;
— extraordinary circumstances so require,

provided that such derogations are precise as to content and limited in space and time. Such taking should not operate to the disadvantage of the species.[317] The Parties shall as soon as possible inform the Secretariat of any exceptions made.[318]

In its 2008 Analysis and Synthesis of National Reports, the Secretariat discusses the exceptions that have been made by Parties per animal group.[319] This only concerns Parties that have introduced legislation to prohibit the taking of Appendix I species in the first place, and, as discussed in sub-section 2.5, their number appears to be limited. Of the Parties that do have such legislation in place, about 25% indicates in their national reports that they have granted one or more exceptions. These usually concern the taking for scientific purposes and in some cases the taking by indigenous people or for public health and safety reasons.[320]

iii. Other Exceptions

Article XII of the convention formulates three exceptions. In the first paragraph it is stated that the CMS shall not prejudice the codification and development of the law of the sea by the UN Conference on the Law of the Sea. The agreement that the provisions of the convention shall 'in no way affect the rights or obligations of any Party deriving from any existing treaty, convention or agreement' has been laid down in the second paragraph. The third paragraph of Article XII allows Parties to adopt stricter domestic measures for the species listed in the appendices as well as for migratory species not listed in the appendices.

These exceptions seem to have little impact in practice.

iv. Conclusion

Even though reservations can be made by the Parties with regard to any listing of migratory species, it appears that this has only been done by a small number of Parties and for a relatively limited number of species.

The derogations as laid down in Article III, paragraph 5 are restricted in scope, and Parties appear to have exercised restraint in their use. The practical impact of the other exceptions seems negligible.

As a consequence, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.7 Element 7: Monitoring

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).*

The objectives laid down in the convention as well as the goal defined in the Strategic Plan require the monitoring of progress towards their realisation. This implies that the status of all migratory animals, especially those listed in the CMS appendices, must be monitored on a regular basis. Additionally, the quality of their main habitats as well as the effects of various human activities and obstacles on these species should also be reviewed.

The convention acknowledges the importance of reliable scientific information. One of its fundamental principles is that Parties 'should promote, co-operate in and support research relating to migratory species'.[321] 'Best scientific evidence available' should be used before listing migratory species in or removing them from Appendix I,[322] and a research clause should be included in the Appendix II AGREEMENTS.[323]

More importantly, it has been laid down in the convention that it is the responsibility of the COP to 'review and assess the conservation status of migratory species',[324] and to 'review the progress made towards the conservation of migratory species, especially those listed in Appendices I and II'.[325] It is the Scientific Council that provides the COP with scientific advice,[326] and it has also been made responsible for recommending, coordinating and evaluating research 'in order to ascertain the conservation status of migratory species',[327] for reporting this information to the COP,[328] and for recommending solutions to this body, especially in relation to the habitats of these species.[329]

The exact status of the monitoring by the CMS of the migratory species and especially those listed in the CMS appendices is unclear. The Scientific Council indicated in 2001 that although the convention has 'an obligation to address *all* migratory species', it would 'not be possible at least in the short-term to try to assess CMS' performance in relation to all species covered by the Convention', and that 'even the list of Appendix I species (currently numbered at 85) would be beyond the Convention's current resources'.[330] It then stated that the focus should be on certain Appendix I species selected for concerted action as well as on certain Appendix II species 'in preventing migratory species from reaching the need for listing on Appendix I'.[331]

As discussed in sub-sections 2.4 and 2.5, a formal review process was established in 1991 for selected Appendix I species,[332] and in 1997 a similar procedure was introduced for certain Appendix II species.[333] The information necessary to carry out these reviews, such as

bibliography, field surveys, remote sensing and questionnaires sourced from national scientific institutions, NGOs, specialised government agencies and other institutions,[334] must be provided by the relevant Parties.[335] The Secretariat is supposed to coordinate the preparation of the review reports with the assistance of the Scientific Council in case of concerted action,[336] but these roles are reversed in case of cooperative action.[337]

The level of implementation of this review process, i.e. the number of species selected for concerted and cooperative action that have actually been reviewed or are being reviewed on a regular basis, remains unclear. Reviews have been carried out by the Scientific Council of various species, but the documentation concerning these reviews does not seem well-structured.[338]

In 2004, UNEP-WCMC carried out 'rapid reviews' of 43 CMS concerted action species and provided reports for each of these (and four additional) species.[339] The purpose of these publications is to provide a concise overview of the conservation status and the conservation actions taken for each species.[340] In relation to these reviews a representative of UNEP-WCMC stated at the 12th meeting of the Scientific Council that it is problematic to keep the information up-to-date and that sometimes 'tremendous information gaps' exist,[341] especially at the level of the CMS and its Agreements.[342] It seems that not all actions that are taken by the Parties, are communicated to the CMS Secretariat.[343]

Some other reports on species reviews are the Review of Small Cetaceans, published by UNEP/CMS in 2004 and covering 71 species (including many species for which the available knowledge was judged insufficient),[344] and the conservation status reports prepared and/or submitted by the Scientific Council on the Mediterranean Monk Seal,[345] the Small Cetaceans in the Solomon Islands Region,[346] the Clymene Dolphin in West Africa,[347] the Atlantic Humpback Dolphin,[348] the Northwest African Population of the Harbour Porpoise,[349] the Iffawaddy Dolphin,[350] and the Chondrichthyan Fishes.[351] The CMS Technical Series also includes publications that report on the status of certain species.[352]

Various International Single Species Action Plans, such as those for the Lesser Flamingo,[353] and the White-winged Flufftail,[354] which also include an overview of the status of the species concerned, are being prepared and presented to the Scientific Council for endorsement.

Besides information on the status of the migratory species concerned, the review reports and action plans usually also contain details about the status of their habitats in the various range states and possible effects of human activities and obstacles on the species.

Unlike its predecessor, the latest CMS Strategic Plan 2006-2011, adopted in 2005, does emphasise the importance of scientific information. The first of the four objectives laid down in this Strategic Plan is: 'To ensure that the conservation and management of migratory species is based on the best available information'.[355] In relation to this objective, eight specific targets have been identified, which 'are to ensure that relevant data continue to be collected which document the status of species and species groups, the pressures acting on biodiversity, the development of responses and the effectiveness of these responses to manage those threats'.[356] The first target is to publish the review of the status of and conservation actions for Appendix I and II species at regular intervals.[357]
Also in 2005, the Scientific Council adopted its first Strategy Implementation Plan 2006-2011, which sets out its intended contribution to the implementation of the CMS Strategic Plan 2006-2011.[358] The Scientific Council underlines that its plan represents 'a major shift to a more strategic and outcome-focused way of working'.[359] In relation to the first objective

laid down in the CMS Strategic Plan 2006-2011, the following six Scientific Council Actions have been developed:

— Ensure that the best information is available for the conservation and management of endangered migratory species with regard to CMS Appendix I;
— Ensure that the best information is available for the conservation and management of migratory species with an unfavourable conservation status (Appendix II species);
— Ensure that the best information is available to identify and assess the major threats to migratory species;
— Ensure that strategic research provides the necessary evidence to address the major issues affecting migratory species;
— Ensure that effective monitoring provides the necessary evidence to address the major issues affecting migratory species;
— Contribute to an effective CMS Information Management System.[360]

For each action, more specific activities have been defined,[361] of which the following are especially relevant to this sub-section: (1) prepare a report on the population status of all Appendix I species and the level of protection in each range state for each COP meeting,[362] (2) identify networks of critical sites for Concerted Action species throughout their range,[363] (3) inform the COP whether or not range states are providing adequate monitoring information for each Appendix I species,[364] and (4) prepare a report on the progress in monitoring migratory species and the outstanding monitoring priorities for each COP meeting.[365]

The first review of the execution of the Scientific Council's Strategy Implementation Plan has been prepared for the Fourteenth Meeting of this body in 2007.[366] It appears that the actions mentioned above are still pending, and that for the implementation of some of these lack of funding might be the main impediment.[367] This is in line with the Secretariat's observation in 2008 that limited progress has been made in relation to the scientific project concerning the population status of Appendix I species due to 'resource and other constraints'.[368]

In relation to the monitoring of migratory species, the Scientific Council largely depends on scientific data provided by the Parties, usually through their councillors. This information, however, appears to be insufficient. Various commentators have stated that there still exists a 'lack of scientific knowledge generally on migratory wildlife',[369] 'that many CMS species do not have good quality long-term time series of data',[370] and that 'even for the best studied species, the data do not yet provide a complete picture'.[371] These comments are in line with the Secretariat's Analysis and Synthesis of National Reports in 2005, which states that in relation to Appendix I species an average of 54% of the Parties that are range states report to carry out some monitoring (59% for concerted action species).[372] The percentages per major animal group are: bats 17%, terrestrial mammals 89%, marine mammals 29%, birds 53%, marine turtles 61%, and other Appendix I species 12%.[373]

It should be noted that some migratory species are very difficult to monitor, for instance because they are hard to track or their habitat is inaccessible. However, monitoring technologies have improved considerably and the use of electronic tags (for instance for birds) and satellite telemetry (for instance for turtles) has become more common. The Secretariat refers to satellite telemetry as 'an important source of high quality information',

but states at the same time that most countries do not yet use this technology due to lack of resources.[374]

Two different information systems were introduced by the convention to manage the available scientific and management information. The Global Register of Migratory Species (GROMS) was launched in 1998 and is run by the Secretariat.[375] This database contains scientific information concerning migratory species, including their migration behaviour, routes and seasonal distribution.[376] The CMS Information Management Plan (IMP) was introduced in 1999 and is managed by the UNEP-WCMC.[377] The IMP appears to be broader in scope and includes information submitted by the Parties in their National Reports.[378] There appears to be some overlap between the two systems, especially in the area of species information, and a course of action to address this is under discussion.[379]

Finally, it should be mentioned that the CMS has committed itself to the so-called 2010 Biodiversity Target, initiated by the Convention on Biological Diversity, to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level. To be able to measure progress towards this target, indicators had to be developed and the 2010 Biodiversity Indicators Partnership was launched in 2006 to coordinate their delivery and communication.[380] The CMS Secretariat is a member of this partnership to which the CMS intends to contribute by developing a Migratory Species Index.[381] Two reports have been prepared for this purpose,[382] which will be reviewed by the Scientific Council.[383]

Conclusion

The available information in relation to the convention's monitoring of migratory animal species shows that reviews by the Scientific Council, the UNEP-WCMC and others only concern a small percentage of the species listed in both CMS appendices, and therefore just a tiny fraction of all migratory species. The main focus so far has been on the concerted and cooperative action species, for which a formal review process has been developed. In carrying out these reviews, the Scientific Council and others are to a large extent dependent on often incomplete monitoring information submitted by the Parties.

The strong focus in the Strategic Plan 2006-2011 on systematic monitoring of all Appendix I and II species could mark the beginning of serious improvements in this area. The launch by the Scientific Council of the Strategy Implementation Plan 2006-2011 introduced a more strategic way of working and clear actions have now been set out that should enhance the level of monitoring. However, it remains doubtful whether these initiatives will survive intact in view of the lack of resources.

New monitoring techniques, such as satellite telemetry, could enable scientists to fill some of the many gaps that still exist regarding essential information on migratory species and their behaviour.

Despite the emergence of some positive developments, the contribution of this element to the effectiveness of the convention is at this stage considered to be **unsatisfactory**.

2.8 Element 8: Communication, Education and Public Awareness

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date*

information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.

Public awareness is not a subject that received much attention in the convention itself, except for Article IX, paragraph 4 (j) in which it is stated that it is the Secretariat's responsibility to provide the general public with information on the convention. Furthermore, the convention encourages the inclusion in each AGREEMENT of a requirement to make the general public aware of the contents and aims of the AGREEMENT.[384]

A genuine acknowledgement of the importance of public awareness can be found in the Strategic Plan 2000-2005, which states that awareness of the relevance of the CMS and its global importance in the context of biodiversity conservation should be increased.[385] The latest Strategic Plan 2006-2011, adopted at COP8 in 2005, lists as its third objective 'to broaden awareness and enhance engagement in the conservation of migratory species'.[386] Key actors have been identified, including the media, but not the general public.[387] The following target has been set in relation to the media: 'awareness of key media of CMS and its leading role in the conservation of migratory species enhanced'.[388]

At the same COP8 meeting, the first CMS Outreach and Communication Plan (2006-2008) was adopted.[389] 'The need to raise awareness on migratory species, threats to their movement, and CMS's activities to mitigate them' is stated as the underlying rationale for this plan.[390] Chapter 5 of the plan presents a table of activities to be undertaken by the Secretariat, the Parties and the stakeholders. Its successor, the CMS Outreach and Communication Plan 2009-2011, was adopted at COP9 in 2008.[391] The table of activities has remained largely unchanged.[392] The Secretariat for example is supposed to produce information material, such as the CMS newsletter, while the Parties should support CMS activities and translate CMS documents into their national language.[393]

It appears that in both plans the focus is primarily on communication and less on education and public awareness, while certain key actors have been chosen as targets. The 'general public' is not explicitly identified as such an actor. In the Outreach and Communication Plan 2006-2008 it is stated that 'as stressed in Article IX of the Convention, it is the Secretariat's responsibility to bring information on migratory species and the Convention to the attention of selected key target audiences',[394] which, by replacing 'general public' by 'selected key target audiences' seems a rather peculiar interpretation of Article IX, paragraph 4 (j).

There is no mentioning in the Outreach and Communication Plan, nor in any other CMS document, of a requirement for CMS Parties to develop and implement a national CEPA programme in relation to the CMS.

The first CMS Outreach and Communication Plan has been evaluated by the Secretariat.[395] It appears that it was the Secretariat that usually initiated the execution of the various activities. The CMS Parties have been less active so far. The implementation of the Outreach and Communication Plan has not been integrated in the national reporting format.

The CMS website generally supports the other communication tools that have been introduced.[396] It provides basic information on the convention, including the CMS brochure, the CMS bulletin and the CMS Family Guide, but it also makes in-depth scientific publications available, such as the CMS technical series. News announcements are regularly posted by the Secretariat. Although many documents in relation to the meetings of the

CMS bodies are available on the website, there are several documents (especially in relation to the Scientific Council), that can not be accessed (nor be obtained on special request).

Extensive information is available on the CMS website about the migratory species listed in the CMS appendices and links to the websites of the Agreements are provided. Two information systems contain additional information on migratory species: the Global Register of Migratory Species (GROMS) and the CMS Information Management Plan (IMP). Both systems include scientific information concerning migratory species.[397]

In 2007, the Year of the Dolphin Campaign was launched in cooperation with UNEP, the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), the Whale and Dolphin Conservation Society and the global tourism group TUI AG, and with H.S.H. Prince Albert II of Monaco as its Patron.[398] The idea behind this campaign, which was adopted by the Standing Committee,[399] was to create awareness of the threats faced by dolphins by means of education, information and the involvement of local communities. A dolphin manual was developed, information on dolphins appeared in brochures, travel catalogues, magazines and on a video, a 'dolphin diploma' for children was created and special Year of the Dolphin events were organised. Relevant information could be found on the dedicated website, www.YoD2007.org. The campaign received a lot of media attention and was considered a great success.[400] As a consequence it was extended into 2008.[401] In January 2009, the Year of the Gorilla campaign was launched in London, with Jane Goodall as its Patron.[402] As of 2005, the CMS and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) annually organise the World Migratory Bird Day, which includes bird festivals, bird watching excursions and education programmes.[403]

The CMS has also introduced the CMS Ambassadors, who are 'eminent personalities well known in the conservation and media worlds for their work on endangered animals'.[404] Appointed by the Executive Secretary of the CMS, they are supposed to 'promote the cause of migratory species through their work and their contacts with the press and media'.[405]

Conclusion

The CMS seems to be perfectly positioned to create public awareness and support due to its focus on the conservation of migratory animals, many of which are favourites of the general public. In spite of that, it took the COP until 2000 before it gave this subject some serious attention. The Outreach and Communication Plan, introduced in 2006 and renewed in 2008, appears to be the start of a more strategic approach towards this issue. Unfortunately, the objective of these plans, 'the need to raise awareness on migratory species, threats to their movement, and CMS's activities to mitigate them', remains rather vague. Furthermore, the focus of the plans is on communication with certain key actors, a group that does not include the 'general public'. Important points such as education and the creation of public awareness and support are not sufficiently addressed. Moreover, the CMS Parties have not shown much urgency in relation to the implementation of the plans. The development and implementation of national CEPA plans has not been formally discussed.

The communication tools that were introduced, such as the CMS website, brochure, Family Guide, bulletins and species information, are informative albeit quite basic, and it is regrettable that not all relevant CMS documents are available on the website.

Campaigns such as the Year of the Dolphin, the Year of the Gorilla and the World Migratory Bird Day seem to be a step in the right direction. In these campaigns the 'general public' is clearly addressed. This type of activity has proven to create much international attention for the conservation of migratory species as well as for the CMS and its daughter Agreements.

However, it is clear that the CMS has no comprehensive CEPA programme in place, as required by the benchmark, nor have the Parties implemented national CEPA programmes. The contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.9 Element 9: Incentives

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.*

In its Family Guide, the Secretariat presents the benefits on offer to a state to become a CMS Party. The main advantages brought forward are (1) demonstrating commitment, (2) strengthening legal and technical capacity, (3) benefiting from cooperation with other countries, and (4) improving access to technologies and data. Additionally, the possibility of financial support for developing countries is mentioned.[406] In this sub-section, the availability of these, or other incentives to the CMS Parties will be looked at in more detail.

i. The Financial Resources Incentive

The convention itself does not include a provision that deals with financial support for certain Parties. However, in 1994, the COP adopted the so-called Small Grants Programme.[407] Within the Trust Fund budget, resources were allocated to support small scale pilot projects.[408] For the triennium 1995-1997, an amount of USD 130,000 was made available, which could be increased further by voluntary contributions.[409] The Secretariat (and the Standing Committee for projects over a certain amount) would select the projects upon the recommendation of the Scientific Council.[410]

The Secretariat stated in 2004 that the Small Grants Programme was supporting 15 projects in 25 countries at that time, that a total of USD 1.4 million had been disbursed from the Trust Fund to support about 45 projects, that the average grant was about USD 20,000-USD 40,000, and that besides Parties that are developing countries or countries with economies in transition, non-Parties, NGOs, research institutes and individuals could also apply.[411] The Secretariat and the Scientific Council have hailed the programme as a success, since it has often led to further funding from other donors and, as the Scientific Council states, 'it changed the nature of the Convention from a somewhat formal administrative instrument to a dynamic and respected conservation tool'.[412]

However, in 2005, a major change in policy in relation to the Small Grants Programme was introduced, which appears to have undermined its momentum. As indicated by the Scientific Council, the funding for the programme is since then no longer provided by the Trust Fund, but is supposed to come from voluntary donations. According to the Scientific Council 'this approach has failed, as the most needed actions are, almost by definition, often the least susceptible to attracting the interest of donors'.[413] This concern is echoed by the Secretariat, which states in its Overview of CMS Secretariat Activities 2006-8 that 'the

number of specific conservation projects in the regions financed by the Small Grants Programme remains modest (6 new projects in 2006-8) as this is now dependent almost entirely on additional voluntary contributions from Parties'.[414] That this seems to be a worrying development can also be inferred from a more general statement of a CMS Working Group that 'shortage of financial means results to be the main obstacle from many – if not most – Parties to properly implement CMS and to further develop its instruments'.[415]

It appears from the budget for 2009-2011 that the amounts allocated to the two budget lines that are relevant in this respect, capacity building events and conservation grants and projects, have been increased moderately.[416]

The CMS Family Guide indicates that Parties could benefit from projects that have been accepted by institutions such as the GEF and the European Commission on the recommendation of the CMS.[417] However, the CMS Working Group on the Development of Regional Agreements states in its 2002 report that not many Parties make use of this opportunity.[418] The low priority assigned to the CMS as well as the lack of procedural knowledge are mentioned as contributing circumstances.[419]

ii. The International Assistance Incentive

This incentive comprises capacity building as well as technical assistance. Both forms of assistance have not received much attention. The Secretariat has acknowledged that, due to its limited budget, capacity building events, such as workshops, are only organised occasionally.[420] It was not until 2008 that the Secretariat presented the CMS Capacity Building Strategy,[421] which was adopted at the COP9 meeting in December 2008.[422] The strategy supports the bottom-up approach, as proposed in UNEP's Bali Strategic Plan for Technology Support and Capacity-building, which could be used as a template for capacity building procedures.[423] This means that the Parties are supposed to make their priorities known. Referring to the CMS Capacity Building Strategy, the COP has indicated that capacity building activities should include regional workshops and other events as well as the development of computer-based learning programmes.[424] To implement the strategy, the Secretariat should cooperate with UNEP, the Scientific Council, the secretariats of the daughter Agreements and other conventions and with other stakeholders, including the private sector.[425]

It appears that securing funding for the Capacity Building Strategy is problematic. In the resolution concerning capacity building, the Parties and the relevant partners are requested to provide financial contributions for the implementation of the strategy.[426] In the strategy itself it is stated that 'the main problem hindering the development of capacity building is inadequate financing' and that 'it is very difficult to plan ahead and allocate resources effectively if each main activity depends on attracting fresh ad hoc resources from voluntary earmarked contributions'.[427]

iii. The Cooperation Incentive

'Cooperation with other countries sharing the same migratory animals or experiencing similar conservation challenges' is presented as one of the benefits of the CMS.[428] It has been laid down in the convention that 'conservation and effective management of migratory species of wild animals require the concerted action of all States'.[429] In line with this statement the convention supports the conclusion of international Agreements for

Appendix II species,[430] and each Party is entitled to appoint an expert as a member of the Scientific Council.[431] The Strategic Plan 2006-2011 states that it is a purpose of the CMS to 'catalyse, foster and support' international cooperation.[432] How this will be done remains unclear.

iv. The Information Incentive

This incentive does not feature prominently in the convention, but can be found in the provision dealing with the conclusion of AGREEMENTS.[433] In the CMS Family Guide the advantages gained from the regular exchange of information and expertise are mentioned as one of the benefits to become a CMS Party.[434] The Parties can indeed make use of a wide range of documentation on migratory species, including the Technical Series.[435] The two information systems that were discussed earlier,[436] the IMP and GROMS, are also important in this respect. It should be noted, however, that the input data received by the Secretariat from various sources, especially from Parties, is not always accurate or complete.

v. The Marketing Incentive

By joining the CMS, a state can demonstrate its commitment to the conservation of migratory species on a global scale. This incentive is included in CMS Family Guide's list of 'Benefits of Membership'.[437]

vi. Conclusion

Until 2004, the Small Grants Programme was funded by the Trust Fund and although only small amounts were made available it was considered to be quite successful. As of 2005, the Small Grants Programme has become almost entirely dependent on voluntary ad hoc contributions and, as indicated by the Scientific Council, this approach has failed.

Lack of funding also limits the value of the international assistance incentive. The fact that a capacity building strategy has now been developed and adopted by the COP may strengthen this incentive somewhat, although the problem of inadequate financing has not yet been solved.

The close cooperation between the Parties, and between Parties and stakeholders on the conservation of migratory species could potentially be a valuable incentive. It is therefore disappointing that its application has received little attention so far from the bodies of the convention.

The information incentive that the CMS has on offer is probably useful for most Parties.

Overall, it must be concluded that the value of the convention's financial incentive is insufficient and that the other incentives have not yet been fully developed. The contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.10 Element 10: Compliance and Enforcement

Benchmark I: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available*

where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.

Benchmark II: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

As in the previous chapters, three different aspects will be looked at in relation to compliance and enforcement: (1) the compliance with and enforcement of the CMS at the national level, (2) the supervisory measures the CMS has available, and (3) the supervision of compliance and enforcement by the Secretariat. Any international dispute settlement procedure available under the CMS will be discussed in this sub-section as well, but is not included in the final assessment.

i. Compliance with and Enforcement of the CMS at the National Level

The availability of data regarding this element is minimal. It has already been discussed in sub-section 2.5, that it is unlikely that many (if any) Parties have implemented the most significant CMS obligations. As a consequence, it will be practically impossible for most Parties to fully comply with the convention. The Secretariat states in its synthesis report 2008 that 'many developing countries noted having difficulties with the enforcement of legislation particularly in attempts to control poaching'.[438] Caddell has concluded that 'there has been limited compliance with the measures adopted by the CMS'.[439]

It appears that there have been no court cases in which the CMS has played a role, not even in relation to the 'no-take' requirement in Article III, paragraph 5, which, as pointed out by various commentators, is such a clear legal obligation that it might well have direct effect.[440]

ii. Supervisory Measures regarding the CMS at the International Level

Of the four broad categories of supervisory measures discussed in Chapter III,[441] the CMS has introduced the 'periodic reporting by the Parties' and the 'fact-finding and research by treaty institutions' in the form of the review process.[442]

The periodic reporting requirement has been laid down in the convention.[443] Parties that are range states for migratory species listed in the appendices should inform the COP, through the Secretariat, on their measures to implement the provisions of the CMS for these species by submitting their national reports at least six months prior to each ordinary meeting of the COP.[444] Parties should also inform the Secretariat about the migratory species listed in the appendices for which they consider themselves range states.[445] In 1999, the initiative was taken to introduce a standard format to simplify the reporting process for the Parties and enable the Secretariat to improve the analysis of the information.[446] Usually, about half of the Parties submit their reports to the Secretariat.[447] In 2002, however, reports were received from two-thirds of the Parties.[448] Unfortunately, this

relatively high score appears to be an exception. As already discussed in sub-section 2.5, the reporting Parties are not always the same ones, which is another factor affecting the value of the synthesis reports. The Secretariat acknowledges that 'the proportion of Parties responding remains relatively low', and that its analysis therefore 'provides a limited view of the status of implementation of the Convention'.[449]

The review process that has been established in 1991 for certain Appendix I species,[450] and in 1997 for certain Appendix II species,[451] could, in a way, be considered as 'fact finding and research by treaty institutions',[452] since the CMS Scientific Council and Secretariat as well as UNEP seem to play a significant role in carrying out these reviews. However, the main purpose of the review process is to monitor the selected species, and not to measure compliance. As indicated earlier in this chapter, the level of implementation of the review process is unclear.[453]

A non-compliance procedure has not been adopted by the COP and it is unlikely that this will happen in the near future. In the 2001 Guide to CMS, it is stated that compliance by the Parties is voluntary and that, as such, the convention and the related Agreements provide no sanctions for non-compliance.[454]

iii. Supervising Compliance and Enforcement by the Secretariat of the Convention

The level of compliance with and enforcement of the CMS by the Parties is not actively supervised by the Secretariat. Wilcove has criticised the CMS for its lack of a powerful administrative body.[455]

iv. International Dispute Settlement Procedures

The convention includes a clause that deals with the settlement of disputes.[456] In case of a dispute between two or more Parties, a solution should first be found through negotiation.[457] If this does not resolve the dispute, Parties may, by mutual consent, submit the dispute to arbitration and this decision shall be binding.[458]

v. Conclusion

The bodies of the convention have adopted a soft approach to compliance and enforcement. The review process is primarily a monitoring tool, which means that the periodic reporting requirement is the only meaningful supervisory measure that the convention has available. However, usually only about half of the Parties, and not always the same ones, submit their reports to the Secretariat.
The Secretariat is not actively supervising Parties' compliance with and enforcement of the CMS. It appears to have taken a 'hands-off' approach in relation to this issue.

The contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

3. The Effectiveness of the CMS: Conclusion

The assessment of the CMS results in a 'satisfactory' rating for just two of the ten elements of the Effectiveness Test. The other eight elements receive an 'unsatisfactory' score.

The two 'satisfactory' elements are 'Environmental NGOs and Other Stakeholder Groups' and 'Reservations, Derogations and Other Exceptions'.

The CMS maintains close relations with a wide variety of NGOs and facilitates cooperation with other stakeholder groups, resulting in a 'satisfactory' score on the 'Environmental NGOs and Other Stakeholder Groups' element.

The second 'satisfactory' rating concerns 'Reservations, Derogations and Other Exceptions', since it is found that even though certain reservations and derogations can be made, Parties have shown restraint in doing so.

However, the CMS's scores on the other eight elements of the Effectiveness Test, namely 'Parties', 'Institutional Framework', 'Objectives, Measures and Timing', 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness', 'Incentives' and 'Compliance and Enforcement' are 'unsatisfactory'.

The convention receives its first 'unsatisfactory' rating on the 'Parties' element, as the number of CMS Parties is relatively limited and several states that can be seen as particularly important because of their natural, political or financial resources, such as the United States, Canada, Brazil, Mexico, Russia, China and Japan, are not a Party.

The 'Institutional Framework' element produces another 'unsatisfactory' due to the convention's insufficient financial resources. As a result, the under-staffed Secretariat as well as the Scientific Council are not able to fully carry out all the tasks assigned to them.

The CMS does not escape an 'unsatisfactory' score on the 'Objectives, Measures and Timing' element either. This results from a mismatch between the objectives and the measures of the convention and serious shortcomings in relation to the latter, since strict protection is only offered to Appendix I species, whereas Appendix II species lack protection unless covered for their range in an Agreement. Furthermore, the arrangements between the CMS and many of its daughter Agreements are rather loose and the resolutions and recommendations dealing with concerted actions for selected Appendix I species and cooperative actions for certain Appendix II species are unclear. A time frame has only been introduced in the latest CMS Strategic Plan 2006-2011.

The convention also receives an 'unsatisfactory' rating on the 'Implementation' element. This is mainly caused by the facts that few Parties have implemented the core provisions of the convention that should protect Appendix I species, serious gaps still exist in both appendices, many listed in Appendix II are not protected by an Agreement and most Agreements only partly cover the ranges of the Appendix II species they seek to protect. Other important factors are the Parties' lack of action in relation to issues such as environmental impact assessment, oil pollution, electrocution, wind turbines, by-catch and climate change as well as the inadequate supervision by the Secretariat.

An 'unsatisfactory' score on the 'Monitoring' element is unavoidable. Only a small percentage of the listed species and hence just a tiny fraction of all migratory species are monitored. The Strategic Plan 2006-2011 introduced a strong focus on the systematic monitoring of all Appendix I and II species, which could indicate that improvements may be expected if not stopped prematurely by a lack of resources.

Even though the Secretariat has developed various CEPA initiatives, neither the CMS nor the Parties have a comprehensive CEPA programme in place. An 'unsatisfactory' rating on the 'Communication, Education and Public Awareness' element is the result.

The CMS gets the same score on the 'Incentives' element. A meaningful financial incentive is, especially now the Small Grants Programme has become dependent on voluntary ad hoc contributions, in practice not available. Other incentives, such as the international assistance, cooperation and information incentives have not yet been fully developed.

The final element on which the convention is judged 'unsatisfactory' is 'Compliance and Enforcement'. The scarcity of information on this element is primarily caused by the CMS's lack of supervisory measures. The periodic reporting by the Parties is the sole significant supervisory measure, but as only about half of the Parties submit their reports, its value is questionable. The Secretariat has clearly taken a hands-off approach in relation to the supervision of compliance and enforcement by the Parties.

The scores on eight of the ten elements are still 'unsatisfactory' and, as a consequence, the Effectiveness Test confirms that this convention is **not yet effective**.

[1] CMS, Article I, paragraph 1 (a).
[2] UNEP/CMS, *Convention on Migratory Species* (2008) 4.
[3] CMS, Article I, paragraph 1 (e).
[4] CMS, Article IV, paragraph 1; the terms 'conservation status', 'favourable' and 'unfavourable' are defined in Article I (see also Box I).
[5] See Latham J. et al., *The Living Planet Index for Migratory Species: an index of change in population abundance* (2008) 18; and CMS Secretariat, *25 Years of Journeys: A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979-2004)* (2004) 18.
[6] See www.cms.int (accessed 31 December 2009).
[7] Resolution 4.4 (1994).
[8] Resolution 6.4 (1999).
[9] Resolution 8.2 (2005).
[10] CMS, Article I, paragraph 1 (a).
[11] Resolution 2.2 (1988), paragraph 1 (a)(i).
[12] Resolution 2.2 (1988), paragraph 1 (a)(ii).
[13] CMS, Article I, paragraph 1 (b).
[14] CMS, Article I, paragraph 1 (c).
[15] CMS, Article I, paragraph 1 (d).
[16] CMS, Article I, paragraph 1 (e).
[17] Resolution 5.3 (1997), paragraph 1.
[18] CMS, Article I, paragraph 1 (f).
[19] CMS, Article I, paragraph 1 (g).
[20] CMS, Article I, paragraph 1 (h).
[21] Resolution 3.1 (1991), paragraph 3.
[22] CMS, Article I, paragraph 1 (i).
[23] See De Klem C., 'The Problem of Migratory Species in International Law' in Bergesen H. and Parmann G. (Eds.), *Green Globe Yearbook of International Co-operation on Environment and Development 1994* (Oxford, 1994) 68.
[24] CMS, Article XV.
[25] See www.cms.int/about/Partylist_eng.pdf (accessed 31 December 2009).
[26] They claimed to have already signed bilateral agreements for many species; see also Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 684.
[27] See De Klem C., 'The Problem of Migratory Species in International Law' in Bergesen H. and Parmann G. (Eds.), *Green Globe Yearbook of International Co-operation on Environment and Development 1994* (Oxford, 1994) 71 and 74.
[28] Resolution 6.4 (1999), Objective 3.
[29] Ibid., Objective 3.1.
[30] Resolution 8.2 (2005), Objective 4, Target 4.1.
[31] See Document CMS/StC32/7 (2007), paragraph 9.
[32] Ibid., second indicator.
[33] See Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Environmental Law & Policy* 152.
[34] See UNEP/CMS/Conf.9.5 (2008), paragraph 19.
[35] CMS Secretariat, *25 Years of Journeys: A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979-2004)* (2004) 24.
[36] Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 684.
[37] CMS, Article XIX.
[38] CMS, Articles VII, IX and VIII respectively.
[39] Resolution 1.1 (1985).
[40] CMS, Article VII, paragraph 1.
[41] CMS, Article VII, paragraph 3.
[42] CMS, Article VII, paragraph 4.
[43] CMS, Article VII, paragraph 5 (a)-(d).
[44] CMS, Article VII, paragraph 5 (e).

[45] CMS, Article XI.
[46] See UNEP/CMS, *CMS Family Guide* (2008) Resolutions and Recommendations, page 1.
[47] CMS, Article X.
[48] CMS, Article X, paragraphs 4 and 5.
[49] CMS, Article VII, paragraph 7.
[50] See for instance CMS, Article VII, paragraph 4.
[51] See UNEP/CMS/Conf.9.35/Rev.1 (2008), paragraph 3.
[52] See www.cms.int/bodies/StC_mainpage.htm (accessed 13 July 2010).
[53] Resolution 6.6 (1999).
[54] See UNEP/CMS/Conf.9.35/Rev.1 (2008), paragraph 6.
[55] See www.cms.int/bodies/StC_mainpage.htm (accessed 13 July 2010).
[56] Currently Ms. Elizabeth Maruma Mrema.
[57] See UNEP/CMS/Conf.9.5 (2008), paragraph 27.
[58] See UNEP/CMS/Conf.9.5 (2008), paragraph 27; see also paragraph vii.
[59] Resolution 5.5 (1997).
[60] See www.cms.int/secretariat/organigram/cms_organigram.pdf (December 2009).
[61] See www.cms.int/news/PRESS/nwPR2000/nw002410.htm.
[62] See www.cms.int/secretariat/organigram/cms_organigram.pdf (December 2009); see sub-section 2.5 for more information on these Agreements.
[63] CMS, Article VIII, paragraph 5 (a).
[64] CMS, Article VIII, paragraph 5 (b).
[65] CMS, Article VIII, paragraph 5 (c).
[66] CMS, Article VIII, paragraph 5 (d).
[67] CMS, Article VIII, paragraph 5 (e).
[68] CMS, Article VIII, paragraph 2.
[69] Ibid.
[70] See www.cms.int/bodies/ScC_mainpage.htm (accessed 13 July 2010).
[71] See Document CMS/StC32/7, Agenda Item 8.a (2007), paragraph 14.
[72] Ibid.
[73] Resolution 9.13 (2008).
[74] CMS, Article VII, paragraph 4.
[75] 2006: EUR 1,954,525; 2007: EUR 2,064,733; 2008: EUR 2,599,397; see Resolution 8.3, Annex I (2005).
[76] See Document UNEP/CMS/Conf.9.34 (2008), paragraph 1.
[77] For the 2003-2005 period the additional amount was EUR 827,000.
[78] See Document UNEP/CMS/Conf.9.33 (2008).
[79] See Document UNEP/CMS/Conf.9.33/Rev.2 (2008).
[80] Resolution 9.14, Annex I (2008); 2009: EUR 1,895,846; 2010: EUR 2,119,804; 2011: EUR 2,558,272.
[81] Resolution 9.14, Annex III (2008); the budget for the 2012-2014 period is 2012: EUR 2,761,766; 2013: EUR 2,844,619; 2014: EUR 2,929,957.
[82] See Document UNEP/CMS/Conf.9.4 (2008).
[83] See Document UNEP/CMS/Conf.9.5 (2008), paragraph 27.
[84] See Document CMS/ScC/15/Inf/1 (2007), paragraphs 13-36.
[85] Resolution 8.2, paragraph 35.
[86] See Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Environmental Law & Policy* 156.
[87] CMS, Article IX, paragraph 2.
[88] CMS, Article VII, paragraph 8.
[89] CMS, Article VII, paragraph 9.
[90] Ibid.
[91] Ibid.
[92] See Document UNEP/CMS/Conf.9.4 (2008), Rule 2, paragraph 5.
[93] Document CMS/StC32/Inf.6, Agenda Item 2.0 (2007), Rule 11 and Document CMS/ScC/15/Inf.2 (2008), Rules 4 and 7.
[94] Resolution 8.2 (2005), Annex.
[95] Ibid., paragraph 34.

96 Ibid., Chapter 6: Logical Framework Table.
97 See Document UNEP/CMS/Conf.9.23 (2008), paragraph 1.
98 Recommendation 4.6 (1994).
99 Ibid., paragraph 4.
100 Resolution 8.2 (2005), paragraph 24.
101 See Steiner A., '25th Anniversary of the Convention on Migratory Species: A long and productive partnership' (2004) 1 *World Conservation* (Special Feature).
102 See www.cms.int/about/partnerships/partnerships_index.htm (accessed 14 July 2010); see also UNEP/CMS, *CMS Family Guide* (2008) CMS Information and Capacity Building.
103 Ibid.
104 See CMS Secretariat, *25 Years of Journeys: A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979-2004)* (2004) 20, 24, 25.
105 See Document UNEP/CMS/Conf.9.23 (2008), paragraph 69.
106 See Gillespie A., 'Facilitating and Controlling Civil Society in International Environmental Law' (2006) 15:3 *RECIEL* 327.
107 Resolution 8.2 (2005), Annex, paragraph 24.
108 Memorandum of Co-operation between the Secretariat of the CMS and the IUCN dated 15 September 2003, Article 3 (a), paragraph 1.
109 Ibid., Article 3 (a), paragraph 2.
110 Ibid., Article 3 (a), paragraph 6.
111 See for instance Document UNEP/CMS/Conf.9.11 (2008).
112 CMS, Article IX, paragraph 4 (b).
113 Resolution 7.9 (2002).
114 Resolution 8.2 (2005), paragraph 20.
115 Resolution 4.4 (1994).
116 See Resolution 8.18 (2005), Annex III.
117 See CBD COP Decision VI/20 (2002); see also Resolution 8.2 (2005), Annex, paragraph 20.
118 The joint work plan has not yet been updated; see www.ramsar.org (accessed 15 July 2010).
119 Resolution 8.11 (2005); see for more information www.cbd.int/blg.
120 See www.cms.int/about/partnerships/partnerships_index.htm.
121 See UNEP/CMS/Conf.9.11 (2008).
122 See www.cms.int/about/partnerships/partnerships_index.htm.
123 CMS Secretariat, *25 Years of Journeys: A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979-2004)* (2004) 35.
124 See www.friendsofcms.de.
125 See UNEP/CMS, *CMS Family Guide* (2008) Information and Capacity Building, page 5.
126 See Resolution 5.7 (1997).
127 CMS, Preamble, fourth recital.
128 Resolution 6.4 (1999).
129 Resolution 8.2 (2005), Annex.
130 Ibid., Chapter 2, paragraph 8.
131 Ibid., Chapter 2, paragraphs 8-10.
132 Ibid., Chapter 2, paragraph 10.
133 Ibid., Chapter 2, paragraph 11.
134 CMS, Article II, paragraphs 1 and 2.
135 CMS, Article II, paragraph 1; see Box I for the definition of 'unfavourable conservation status'.
136 CMS, Article II, paragraph 2.
137 Resolution 5.3 (1997), first recital.
138 Ibid., paragraph 1.
139 See Document UNEP/ScC11/Doc.6 (2002) in which a recommendation to the COP is made to adopt the IUCN criteria Critically Endangered (CR) and Endangered (EN) for Appendix I species and Vulnerable (VU) and Near Threatened (NT) for Appendix II species, as well as Least Concern (LC) and Data Deficient (DD) if such a taxon has a conservation status that would significantly benefit from international cooperation that could be achieved by an international agreement.
140 See Resolution 8.2 (2005), Annex, paragraph 29; see Box I for the definition of 'favourable conservation status'.

141 CMS, Article I, paragraph 1 (b) and (c); see also Box I of this chapter.
142 Professor of ecology, evolutionary biology, and public affairs at Princeton University.
143 See Wilcove D., 'Animal Migration An Endangered Phenomenon?' (2008) *Issues in Science and Technology* 5, available on www.issues.org/24.3/wilcove/html.
144 CMS, Article I, paragraph 1 (c) (4).
145 CMS, Article II, paragraph 3.
146 See for instance CMS Article III, paragraph 4, Article IV, paragraph 3, and Article V, paragraph 3 and 5.
147 CMS, Article VIII, paragraph 5 (b).
148 CMS, Article III, paragraph 1.
149 CMS, Article III, paragraphs 4, 5 and 6.
150 CMS, Article III, paragraph 4 (a).
151 CMS, Article III, paragraph 4 (b).
152 CMS, Article III, paragraph 4 (c).
153 CMS, Article III, paragraph 5.
154 See for instance Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997) 130; and Bastmeijer C., Bruin M. de and Verschuuren J., *Internationaal Natuurbeschermingsrecht: Inspiratie voor de nationale wetgever? Een onderzoek naar de verhouding tussen natuurbeschermingsverdragen en de Flora- en faunawet, Natuurbeschermingswet en Boswet* (2007) 17.
155 CMS, Article III, paragraph 6.
156 CMS, Article VI, paragraph 2.
157 See Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997) 127.
158 CMS, Article IV, paragraph 1.
159 CMS, Article IV, paragraph 3.
160 Ibid.
161 CMS, Article IV, paragraph 2.
162 CMS, Article IV, paragraph 3.
163 CMS, Article IV, paragraph 4.
164 CMS, Article V, paragraph 3.
165 CMS, Article V, paragraph 2.
166 CMS, Article V, paragraphs 4 and 5.
167 CMS, Article V, paragraph 2.
168 CMS, Article V, paragraph 1.
169 Resolution 3.5 (1991).
170 See for more information the CMS document 'How to become a member of CMS and CMS-related Agreements' available on www.cms.int/about/cmsMembership_howTo.pdf .
171 See sub-section 2.5 for an overview of the Agreements.
172 The two Action Plans that have been launched are for the Sahelo-Saharan Antelopes and the Central Asian Flyway.
173 CMS, Article VII, paragraph 5 (d).
174 CMS, Article VII, paragraph 5 (e).
175 CMS, Article IV, paragraph 5.
176 CMS, Article IX, paragraph 4 (b).
177 Resolution 3.5 (1991), paragraph 2.
178 UNEP/CMS/Conf.9.16 (2008), Chapter 3.3.
179 Resolution 9.13 (2008).
180 See Shine C., 'Selected Agreements Concluded Pursuant to the Convention on the Conservation of Migratory Species of Wild Animals' in Shelton D. (Ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (Oxford, 2000) 198.
181 See Koester V., 'The Five Global Biodiversity-Related Conventions: A Stocktaking' (2002) 11:1 *RECIEL* 100.
182 See Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Environmental Law & Policy* 123.
183 CMS, Article XI.
184 CMS, Article XI, paragraph 6; see also sub-section 2.6.
185 See CMS, Articles II, III and VI.

186 CMS, Article VII, paragraph 5 (a) and (b).
187 CMS, Article VII, paragraph 5 (e).
188 CMS, Article VII, paragraph 5 (h).
189 Resolution 3.2 (1991).
190 A new procedure for the identification of Concerted Action species was prepared and discussed by the Scientific Council in 2002; see Document ScC11/Doc.3(Rev.1) (2002).
191 Recommendation 5.2 (1997).
192 Ibid.
193 See Report of the Thirteenth Meeting of the Scientific Council of the Convention on the Conservation of Migratory Species of Wild Animals, November 2005, paragraph 47.
194 Resolution 7.2 (2002).
195 CBD Decision VI/7 (2002).
196 Resolution 7.3 (2002).
197 Resolution 7.4 (2002).
198 Problems occur when a bird's wings bridge the gap between wires carrying different voltages or between the wire carrying the electric current and the pole supporting the wire.
199 Cetaceans suffer from noise pollution, while collision and disturbance are the principal dangers for birds.
200 Recommendation 7.2 (2002), first recital.
201 FAO Technical Guidelines on the Interactions between Sea Turtles and Fisheries, FAO International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries and FAO International Plan of Action for Conservation and Management of Sharks.
202 Resolution 8.13 (2005).
203 Resolution 9.7 (2008).
204 Resolution 8.13 (2005), paragraph 3.
205 Resolution 8.27 (2005).
206 Resolution 8.2 (2005), Annex.
207 Resolution 6.4 (1999).
208 Resolution 8.2 (2005), Annex, Chapter 6.
209 See De Klemm C., 'The Problem of Migratory Species in International Law' in Ole Bergesen H. and Parmann G. (Eds.), *Green Globe Yearbook of International Co-operation on Environment and Development 1994* (Oxford, 1994) 70.
210 See Earth Negotiations Bulletin, Summary of the Ninth Conference of the Parties to the Convention on Migratory Species of Wild Animals and Related Meetings: 27 November – 5 December 2008, page 11; available on www.iisd.ca/cms/cop9.
211 CMS, Article III, paragraph 5.
212 See UNEP/CMS/Conf.9.10 (2008), Annex, Table 3, page 13 (over twenty species are mentioned); see also paragraph 16.
213 Ibid.
214 See UNEP/CMS/ScC15/Inf.1 (2007), Annex to report of Working Group on Birds, page 42.
215 See Earth Negotiations Bulletin, Summary of the Ninth Conference of the Parties to the Convention on Migratory Species of Wild Animals and Related Meetings: 27 November – 5 December 2008, page 11; available on www.iisd.ca/cms/cop9.
216 Report of the Thirteenth Meeting of the Scientific Council, 16-18 November 2005, Annex II, No.1.1.2.
217 See Document CMS/ScC14/Doc.21 (2007), No.1.1.2.
218 See Latham J. et al., *The Living Planet Index for Migratory Species: an index of change in population abundance* (2008) 18.
219 See Earth Negotiations Bulletin, Summary of the Ninth Conference of the Parties to the Convention on Migratory Species of Wild Animals and Related Meetings: 27 November – 5 December 2008, page 11, available on www.iisd.ca/cms/cop9.
220 See UNEP/CMS/Conf.9.10 (2008), Table 4, page 15: more than 30 species that should be considered for listing are mentioned.
221 See Document CMS/StC/3 (2005), page 25.
222 Report of the Thirteenth Meeting of the Scientific Council, 16-18 November 2005, Annex II, No.1.2.2.
223 See Document CMS/ScC14/Doc.21 (2007), No.1.2.2.
224 See Report of the 27th Meeting of CMS Standing Committee (2004), paragraph 55.
225 See UNEP/CMS/Conf.9.10 (2008), paragraph 67.

[226] See UNEP/CMS/Conf.8.5 (2005), Annex 1 (as at 31 August 2005) and UNEP/CMS/Inf.9.12X (2008).
[227] CMS, Article II, paragraph 3 (a).
[228] See UNEP/CMS/Conf.8.5/Add1 (2005), Table 3, page 4.
[229] CMS, Article III, paragraph 4 (a).
[230] UNEP/CMS/Conf.9.10 (2008), paragraph 21.
[231] Ibid., paragraphs 22 and 58.
[232] See UNEP/CMS/Conf.8.5/Add1 (2005), Table 3, page 4; the percentages of Parties taking action in this area by major animal group are as follows: bats 0%, terrestrial mammals 19%, marine mammals 5%, birds 9%, marine turtles 12%, other Appendix I species 0%.
[233] Ibid., paragraph 41.
[234] CMS, Article III, paragraph 4 (b).
[235] CMS, Article III, paragraph 4 (c).
[236] Ibid.
[237] UNEP/CMS/Conf.8.5 Add1 (2005), paragraph 7.
[238] CMS, Article III, paragraph 5.
[239] UNEP/CMS/Conf.9.10 (2008), paragraph 10.
[240] Ibid., paragraphs 9 and 63.
[241] See CMS/ScC12/Doc.5 (2004).
[242] See UNEP/CMS/ScC15/Inf.1 (2008), Annexes 2-6.
[243] Resolution 9.1/Rev.1 (2008).
[244] See UNEP/CMS/Conf.8.5/Add1 (2005), paragraph 15.
[245] See CMS/ScC12/Doc.5 (2004).
[246] See UNEP/CMS/Conf.9.14/Rev.1 (2008); see also www.cms.int/species/ss_antelopes/ss_antelope_intro.htm.
[247] The Wild or Bactrian Camel, the Wild Yak and the Snow Leopard.
[248] See Recommendation 8.23 (2005) and UNEP/CMS/Conf.9.14/Rev.1 (2008), especially page 11.
[249] See Document UNEP/CMS/ScC15/Inf.1 (2008), Annexes 2-6.
[250] Recommendation 5.2 (1997).
[251] Resolution 9.1/Rev.1 (2008).
[252] See Document UNEP/CMS/ScC15/Inf.1 (2008), Annex 3, B1.
[253] See Report of the Twelfth Meeting of the CMS Scientific Council of April 2004, paragraphs 62-65 and Report of the Thirteenth Meeting of the CMS Scientific Council of November 2005, sub-section 5.2.
[254] Report of the Thirteenth Meeting of the CMS Scientific Council of November 2005, paragraph 46.
[255] This overview includes all Agreements that were concluded up to December 2008.
[256] See Document CMS/StC32/7 (2007), paragraph 10.
[257] See for instance Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Environmental Law & Policy* 140.
[258] See for more information www.cms.int/species/eurobats/bat_bkrd.htm (accessed 20 July 2010).
[259] See for more information www.unep-aewa.org and www.cms.int/species/aewa/aew_bkrd.htm (accessed 20 July 2010).
[260] See for more information www.cms.int/species/acap/acap_bkrd.htm (accessed 20 July 2010).
[261] The phocine distemper virus.
[262] See for more information www.cms.int/species/wadden_seals/sea_bkrd.htm (accessed 20 July 2010); see also www.waddensea-secretariat.org.
[263] See for more information www.cms.int/species/siberian_crane/sib_bkrd.htm (accessed 20 July 2010).
[264] See for more information www.cms.int/species/ascobans/asc_bkrd.htm (accessed 20 July 2010); see also www.ascobans.org.
[265] See for more information www.cms.int/species/sb_curlew/sbc_bkrd.htm (accessed 20 July 2010)..
[266] See for more information www.cms.int/species/africa_turtle/AFRICAturtle_bkgd.htm (accessed 20 July 2010).
[267] See for more information www.cms.int/species/accobams/acc_spp.htm (accessed 20 July 2010) and www.accobams.org.
[268] See for more information www.cms.int/species/otis_tarda/otis_tarda_bkrd.htm (accessed 20 July 2010).
[269] See for more information www.cms.int/species/iosea/IOSEAturtle_bkgd.htm (accessed 20 July 2010) and www.ioseaturtles.org.

[270] See for more information www.cms.int/species/bukhara_deer/bukhara_deer_intro.htm (accessed 20 July 2010).
[271] See for more information www.cms.int/species/aquatic_warbler/aquatic_warbler_bkrd.htm (accessed 20 July 2010).
[272] See for more information www.cms.int/species/elephants/index.htm (accessed 20 July 2010).
[273] See for more information www.cms.int/species/pacific_cet/pacific_cet_bkrd.htm (accessed 20 July 2010).
[274] See for more information www.cms.int/species/saiga/saiga_meetings.htm (accessed 20 July 2010).
[275] See for more information www.cms.int/species/ruddy_goose/ruddy_goose_bkrd.htm (accessed 20 July 2010).
[276] See for more information www.cms.int/species/Grassland_birds/grassland_birds_bkrd.htm (accessed 20 July 2010).
[277] See for more information www.cms.int/species/monk_seal/monk_seal_bkrd.htm (accessed 20 July 2010).
[278] See for more information www.cms.int/species/dugong/index.htm (accessed 20 July 2010).
[279] See for more information www.cms.int/species/gorillas/index.htm (accessed 20 July 2010).
[280] See for more information www.cms.int/species/waam/index.htm (accessed 20 July 2010).
[281] See UNEP/CMS/AEBOP/2/6/Rev.1 (2008), paragraph 5.
[282] See for more information www.cms.int/species/raptors/index.htm (accessed 20 July 2010).
[283] See for more information www.cms.int/species/flamingos/flamingos_bkrd.htm (accessed 20 July 2010).
[284] See CMS/StC29/3 (2005), page 25.
[285] Seals in the Wadden Sea, Bukhara Deer, West African Populations of the African Elephant, Ruddy-headed Goose, Saiga Antelope, Mediterranean Monk Seal and Southern South American Migratory Grassland Birds Species.
[286] Siberian Crane and High Andean Flamingos.
[287] See UNEP/CMS/Conf.9.10 (2008), paragraph 34.
[288] See Gillespie A., 'Environmental Impact Assessments in International Law' (2008) 17:2 *RECIEL* 221.
[289] Resolution 7.3 (2002).
[290] UNEP/CMS/Conf.9.10 (2008), paragraphs 35-36.
[291] Ibid., paragraph 36 and Annex I, page 31.
[292] Ibid., Annex I, page 31.
[293] Ibid., paragraph 47 and Annex I, page 33.
[294] See Resolution 9.18/Rev.1 (2008), first recital.
[295] Resolution 8.13 (2005).
[296] UNEP/CMS/Conf.9.10 (2008), paragraph 66 and Annex I, page 33.
[297] Ibid., Annex I, page 33.
[298] Resolution 9.7 (2008), paragraph 1.
[299] Document CMS/StC29/3 (2005).
[300] Report of the 27th Meeting of the CMS Standing Committee, June 2004, paragraph 48.
[301] UNEP/CMS/COP8/Report (2005), paragraph 79.
[302] Ibid., Annex V, Chapter V.
[303] See Report of the 27th Meeting of the CMS Standing Committee, June 2004, paragraph 55.
[304] Ibid., paragraph 51.
[305] UNEP/CMS/Conf.9.10 (2008), paragraph 68.
[306] Report of the 27th Meeting of the CMS Standing Committee, June 2004, paragraph 52.
[307] CMS, Article XIV.
[308] CMS, Article XIV, paragraph 2.
[309] CMS, Article XI, paragraphs 5 and 6.
[310] CMS, Article XIV, paragraph 2, Article XI, paragraph 6.
[311] See UNEP/CMS/Inf.9.5 (2008); the Parties are Argentina, Bolivia, Denmark, Norway, France, Cuba, and the EC.
[312] Examples are the Sperm Whale, the Killer Whale, the White-beaked Dolphin and the Atlantic White-sided Dolphin.
[313] France for the Green Turtle and Cuba for the Green Turtle, the Loggerhead Turtle and the Hawksbill Turtle.

[314] Upon enquiry, it appeared that the EU made this reservation because it could not comply with the 'no-take' requirement at the time of listing of the Basking Shark in Appendix I (2005). It has now been confirmed by e-mail to the author, dated 27 February 2009, that the EU has since prohibited fishing for, retaining on board, transhipping or landing Basking Sharks by any vessel in EU waters or EU vessels fishing anywhere. However, the EU claims that the reservation cannot yet be withdrawn since there is still 'the need to ensure coherence between EU nature legislation and CMS'.
[315] UNEP/CMS, *CMS Family Guide* (2008) Resolutions and Recommendations, page 1.
[316] See Box I for the definition of 'taking'.
[317] CMS, Article III, paragraph 5.
[318] CMS, Article III, paragraph 7.
[319] Birds, Marine Mammals, Marine Turtles, Terrestrial Mammals, Bats, Other Taxa.
[320] See UNEP/CMS/Conf.9.10 (2008), Annex I, pages 2, 5, 6, 9, 10 and 11.
[321] CMS, Article II, paragraph 3 (a).
[322] CMS, Article III, paragraphs 2 and 3.
[323] CMS, Article V, paragraph 5 (c) and (d).
[324] CMS, Article VII, paragraph 5 (a).
[325] CMS, Article VII, paragraph 5 (b).
[326] CMS, Article VIII, paragraph 5; see also UNEP/CMS/ScC15/Inf.2 and Rules of Procedure of the Scientific Council, Rule 1.
[327] CMS, Article VIII, paragraph 5 (b).
[328] Ibid.
[329] CMS, Article VIII, paragraph 5 (e).
[330] Report of the Tenth Meeting of the CMS Scientific Council, May 2001, page 35.
[331] Ibid.
[332] Resolution 3.2 (1991).
[333] Recommendation 5.2 (1997).
[334] See United Nations System-Wide Earthwatch on http://earthwatch.unep.ch/about/docs/Pdcms.htm.
[335] Resolution 3.2 (1991), paragraph 3 and Recommendation 5.2 (1997), paragraph 3.
[336] Resolution 3.2 (1991), paragraph 2.
[337] Recommendation 5.2 (1997), paragraph 3.
[338] Meeting documents for Scientific Council meetings 1-10 are not available on the website of the convention; some reports of these meetings refer to reviews that have been conducted.
[339] See Document CMS/ScC12/Doc.5 (2004).
[340] Ibid., Attach 1, page 3.
[341] See Report of the Twelfth Meeting of the CMS Scientific Council , March/April 2004, paragraph 37.
[342] Ibid., paragraph 41.
[343] Ibid., paragraph 38.
[344] UNEP/CMS, *Review of Small Cetaceans: Distribution, Behaviour, Migration and Threats* (2004) 2.
[345] Document CMS/ScC12/Doc.5.1 (2004).
[346] Document CMS/ScC14/Doc.4 (2007).
[347] Document CMS/ScC14/Doc.5 (2007).
[348] Document CMS/ScC14/Doc.6 (2007).
[349] Document CMS/ScC14/Doc.7 (2007).
[350] Document CMS/ScC14/Doc.8 (2007).
[351] Document CMS/ScC14/Doc.14 (2007).
[352] Reviews have been published for the Sahelo-Saharan Antelopes, the Ferruginous Duck, the White-headed Duck, the Corncrake, the Chondrichthyan Fishes, and the Gorilla; reviews are available on www.cms.int/publications/cms_tech_series.htm.
[353] See UNEP/CMS/ScC15/Doc.9 (2008).
[354] See UNEP/CMS/ScC15/Doc.5 (2008).
[355] UNEP/CMS/Resolution 8.2 (2005), paragraph 31.
[356] Ibid.
[357] Ibid., Chapter 6: Logical Framework Table, page 10.
[358] Report of the Thirteenth Meeting of the Scientific Council of the Convention on the Conservation of Migratory Species of Wild Animals, November 2005, Annex II.
[359] Ibid., Introduction, page 23.

[360] Report of the Thirteenth Meeting of the Scientific Council of the Convention on the Conservation of Migratory Species of Wild Animals, November 2005, Annex II.
[361] Ibid.
[362] Ibid., No. 1.1.7.
[363] Ibid., No. 1.3.7.
[364] Ibid., No. 1.5.1.
[365] Ibid., No. 1.5.4.
[366] Document CMS/ScC14/Doc.21.
[367] For instance action No. 1.1.7.
[368] See UNEP/CMS/Conf.9.5 (2008), paragraph 9.
[369] See Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Environmental Law & Policy* 141.
[370] See Newson S. et al., 'Indicators of the impact of climate change on migratory species' (2009) 7:2 *Endangered Species Research* 9; available on www.int-res.com.
[371] See Wilcove D. and Wikelski M., 'Going, Going, Gone: Is Animal Migration Disappearing?' (2008) 6:7:e188 *PLoS Biology* 1362; available on www.plosbiology.org.
[372] See UNEP/CMS/Conf.8.5/Add1 (2005), paragraph 16.
[373] Ibid., paragraph 14 and Table 3, page 4.
[374] See UNEP/CMS/Conf.9.10 (2008), paragraphs 56-57.
[375] See www.groms.de.
[376] See UNEP/CMS/Conf.8.12 (2005).
[377] See www.unep-wcmc.org/isdb/cms/Taxonomy.
[378] See Resolution 6.5 (1999).
[379] See UNEP/CMS/Conf.8.12 (2005) and Resolution 9.3 (2008).
[380] See www.cbd.int/2010-target.
[381] See Resolution 8.7 (2005) and UNEP/CMS/ScC15/Doc.14.
[382] See Latham J. et al., *The Living Planet Index for Migratory Species: an index of change in population abundance* (2008); and BirdLife International, *Red List Indices for migratory species* (2008).
[383] See UNEP/CMS/ScC15/Doc.14.
[384] CMS, Article V, paragraph 5 (n).
[385] Resolution 6.4 (1999), Operational Objective 4.1.
[386] Resolution 8.2 (2005).
[387] As key actors are mentioned: Parties, non-Parties, Partners, Media, and Sectoral Groups.
[388] See Resolution 8.2 (2005), Annex, Chapter 6, Objective 3.
[389] Resolution 8.8 (2005).
[390] Ibid., second recital.
[391] Resolution 9.5 (2008).
[392] Ibid., Annex, Section D.
[393] Ibid., Annex, Section D.
[394] Resolution 8.8 (2005), Chapter 1, paragraph 3.
[395] UNEP/CMS/Conf.9.22/Rev.1 (2008).
[396] www.cms.int.
[397] See also sub-section 2.7.
[398] The Year of the Dolphin campaign followed the Year of the Turtle campaign in 2006, which was launched by the IOSEA, the MOU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia.
[399] See Document CMS/StC.31/6/Add.1 (2006).
[400] See for more information UNEP/CMS/Conf.9.21 (2008).
[401] See UNEP/CMS, *CMS Family Guide* (2008) Information and Capacity Building, page 9.
[402] See www.yog2009.org.
[403] See UNEP/CMS, *CMS Family Guide* (2008) Information and Capacity Building, page 10.
[404] See www.cms.int/about/ambassadors/ambassadors_intro.htm.
[405] Ibid, the following ambassadors have been appointed: Kuki Gallmann, Peter Schei, Stanley Johnson, and Ian Redmond (accessed 25 July 2010).
[406] UNEP/CMS, *CMS Family Guide* (2008) History and Structure, page 10.

[407] Resolution 4.4 (1994), Annex, paragraph 10.
[408] Ibid.
[409] Ibid.
[410] Ibid.; see also Resolution 4.5 (1994).
[411] See CMS Secretariat, *25 Years of Journeys: A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979-2004)* (2004) 22.
[412] Report of the Fifteenth Meeting of the Scientific Council of the Convention on the Conservation of Migratory Species of Wild Animals, November 2008, Annex II.; see also UNEP/CMS, *CMS Family Guide* (2008) Information and Capacity Building, page 14.
[413] Ibid.
[414] See UNEP/CMS/Conf.9.5 (2008), paragraph 24.
[415] UNEP/StC.23/Doc.18 (2001), paragraph 3.5.
[416] See Resolution 9.14 (2008), Annex I; in the budget 2009-2011, an amount of EUR 21,814 per annum is included for capacity building events (EUR 10,000 per annum in the 2006-2008 budget) and EUR 56,696 per annum for conservation grants and projects (EUR 49,164 per annum in the 2006-2008 budget).
[417] UNEP/CMS, *CMS Family Guide* (2008) History and Structure, page 10.
[418] UNEP/StC.23/Doc.18 (2001), paragraph 3.5.
[419] Ibid.
[420] See UNEP/CMS/Conf.9.30 (2008), paragraph 5.
[421] UNEP/CMS/Conf.9.30 (2008).
[422] Resolution 9.12 (2008).
[423] See UNEP/GC.23/6/Add.1 (2004).
[424] See Resolution 9.12 (2008), paragraphs 6-8.
[425] Ibid., paragraphs 5-7, 9.
[426] Ibid., paragraphs 2 and 4.
[427] UNEP/CMS/Conf.9.30 (2008), paragraph 20.
[428] UNEP/CMS, *CMS Family Guide* (2008) History and Structure, page 10.
[429] CMS, Sixth recital.
[430] CMS, Article IV.
[431] CMS, Article VIII, paragraph 2.
[432] Resolution 8.2 (2005), paragraph 13.
[433] CMS, Article V, paragraphs (d) and (l).
[434] UNEP/CMS, *CMS Family Guide* (2008) History and Structure, page 10.
[435] Ibid., Information and Capacity Building, pages 11-12.
[436] See sub-section 2.7.
[437] UNEP/CMS, *CMS Family Guide* (2008) History and Structure, page 10.
[438] UNEP/CMS/Conf.9.10 (2008), paragraph 64.
[439] See Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Law & Policy* 140.
[440] See Van Hoorick G., *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997) 130; and Bastmeijer C., Bruin M. de and Verschuuren J., *Internationaal Natuurbeschermingsrecht: Inspiratie voor de Nationale Wetgever? Een onderzoek naar de verhouding tussen natuurbeschermingsverdragen en de Flora- en faunawet, Natuurbeschermingswet en Boswet* (2007) 17.
[441] See Chapter III, sub-section 5.10.
[442] The other two categories are the inspection by treaty institutions and the non-compliance procedure.
[443] CMS, Article VI, paragraph 3.
[444] Ibid.
[445] CMS, Article VI, paragraph 2.
[446] Resolution 6.5 (1999); see also UNEP/CMS/Conf.8.14 (2005).
[447] See UNEP/CMS/Conf.8.14 (2005), paragraph 2 and UNEP/CMS/Conf.9.10 (2008), paragraph 67.
[448] See UNEP/CMS/Conf.8.14 (2005), paragraph 4.
[449] UNEP/CMS/Conf.9.10 (2008), paragraph 67.
[450] Resolution 3.2 (1991).
[451] Recommendation 5.2 (1997).
[452] See sub-sections 2.4, 2.5 and 2.7 for more information on these procedures.
[453] See sub-section 2.7.

[454] CMS Secretariat, *Guide to the Convention on the Conservation of Migratory Species of Wild Animals* (2001) 4.

[455] See Wilcove D., 'Animal Migration An Endangered Phenomenon?' (2008) *Issues in Science and Technology* 5, available on www.issues.org/24.3/wilcove.html.

[456] CMS, Article XIII.

[457] Ibid., paragraph 1.

[458] Ibid., paragraph 2.

CHAPTER VIII: CONVENTION ON BIOLOGICAL DIVERSITY

1. Introduction

The final biodiversity-related convention to be examined in this study is the Convention on Biological Diversity, usually referred to as the Biodiversity Convention or the CBD.[1] This convention was opened for signature at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, together with the United Nations Framework Convention on Climate Change (UNFCCC).[2] The development of the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (UNCCD), was agreed upon at the same conference.[3] These three conventions are now often referred to as 'The Rio Conventions'. The CBD entered into force on 29 December 1993. Unlike the other two Rio Conventions, which operate directly under the auspices of the United Nations, the CBD operates under the auspices of the United Nations Environment Programme (UNEP). Its Secretariat is based in Montreal, Canada. The number of Contracting Parties is currently 193,[4] which means that its participation is almost universal.

The alarming loss of biodiversity as a result of human activities caused the USA, at a meeting of the UNEP Governing Council in 1987, to take the initiative for the CBD. This resulted in a decision by the Governing Council to set up an ad hoc Working Group of Experts on Biological Diversity to study 'the desirability and possible form of an umbrella convention'.[5] In 1989, the Governing Council started the process of drafting the convention. The foundation for the text of the convention was laid by the IUCN, which submitted its draft legal articles to the group of experts. This group of experts, renamed the Intergovernmental Negotiating Committee, subsequently finalised the text.[6]

The CBD distinguishes itself from the biodiversity-related conventions that have been discussed in previous chapters by adopting a holistic approach to the conservation of the Earth's biological diversity by covering, within the scope of the convention, all ecosystems, species and genetic resources. The convention is not limited to the protection of biodiversity as such. Issues such as sustainable use of the components of biodiversity, access to genetic resources, sharing of the benefits arising from the use of genetic resources and access to technology are all being dealt with. Another new element is that the CBD introduces into international law the link between protecting biodiversity and addressing the needs of developing countries. The preamble of the convention states that 'special provision is required to meet the needs of developing countries, including the provision of new and additional financial resources and appropriate access to relevant technologies'.[7]

The three objectives laid down in the convention are (1) the conservation of biological diversity, (2) the sustainable use of its components, and (3) the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.[8] In 2002, a Strategic Plan for the convention was adopted by the Contracting Parties.[9] Four goals were set and the following mission was formulated: 'Parties commit themselves to a more effective and coherent implementation of the three objectives of the Convention, to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth'.[10] The Strategic Plan will be updated at COP10 in 2010.[11]

In section 2 of this chapter, the effectiveness of the CBD will be examined on the basis of the Effectiveness Test.

Box I: Key Terms of the CBD[12]

Biological diversity: variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

Biological resources: includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

Biotechnology: any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.

Country of origin of genetic resources: the country which possesses those genetic resources in *in-situ* conditions.

Country providing genetic resources: the country supplying genetic resources collected from *in-situ* sources, including populations of both wild and domesticated species, or taken from *ex-situ* sources, which may or may not have originated in that country.

Domesticated or cultivated species: species in which the evolutionary process has been influenced by humans to meet their needs.

Ecosystem: a dynamic complex of plant, animal, and micro-organism communities and their non-living environment interacting as a functional unit.

Ex-situ conservation: the conservation of components of biological diversity outside their natural habitats.

Genetic material: any material of plant, animal, microbial or other origin containing functional units of heredity.

Genetic resources: genetic material of actual or potential value.

Habitat: the place or type of site where an organism or population naturally occurs.

In-situ conditions: conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

In-situ conservation: the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

Protected area: a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.

Sustainable use: the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

2. The Effectiveness of the CBD

2.1 Element 1: Parties

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.*

At the Earth Summit in Rio de Janeiro in 1992, when the CBD was first opened for signature, more than 150 states signed the convention. Today, the convention has 193 Contracting Parties that have ratified, accepted, approved or acceded to the convention.[13] One of the Contracting Parties is the EC, which as a regional economic integration organisation is also eligible to become a Contracting Party.[14] The convention requires the EC and its Member States to 'decide on their respective responsibilities for the performance of their obligations under the Convention'.[15]

The United States of America is conspicuous by its absence. Although the USA played an important role in the initiation of the convention, it could not agree with the final wording of the text. It declared that the final text 'threatened to retard biotechnology and undermine the protection of ideas'.[16] While the USA signed the convention in 1993 under President Clinton, it has not ratified it to date. In its declaration to the convention it identifies several issues it finds unsatisfactory in the convention text such as the treatment of intellectual property rights, financing (the role of the GEF), technology transfer and biotechnology.[17] Although not a Contracting Party, the USA has always sent large delegations to the CBD COP meetings.[18] Should its current President, Mr. Obama, decide that the USA has to become a Contracting Party to the CBD, he would need two-thirds of the vote of the Senate to obtain ratification. Besides the USA, the only other absentees are Andorra and the Holy See (not a UN Member State) now Iraq and Somalia have joined the CBD in 2009.

Earlier, the Conference of the Parties (COP) expressed its dissatisfaction with the fact that universal membership had not yet been realised. In the Annex to The Hague Ministerial Declaration of the Conference of the Parties to the Convention on Biological Diversity, adopted in 2002, it is stated that 'There is a small number of countries that have not yet ratified the Convention. Achieving the objectives of the Convention requires action on a global scale and it is important that all countries make the commitment to work together for its implementation'.[19] The Executive Secretary of the convention, Mr. Ahmed Djoghlaf, has on a number of occasions expressed his hope that these countries, and especially the USA, will become Contracting Parties to the CBD as soon as possible.[20]

The convention is subject to ratification, acceptance or approval.[21] It is open for accession by states and regional economic integration organisations.[22] A Contracting Party can withdraw from the convention one year after it has notified its intention to do so.[23] So far, this has never occurred.

Conclusion

The number of Contracting Parties to the CBD is the highest of all biodiversity-related conventions assessed in this study and its participation is now nearly global. Unfortunately, the USA has not ratified the convention. This diminishes the impact of the CBD, since the capabilities, resources and international standing of the USA cannot now be deployed within its structure. Furthermore, the conservation of this state's biodiversity is not covered by the convention. It has become clear that the COP aims to add the USA and the other absentee(s) to the list of Contracting Parties as soon as possible.

Nevertheless, in view of the CBD's nearly universal membership, the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.2 Element 2: Institutional Framework

Benchmark: *For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well- functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.*

The basis for the institutional framework can be found in the convention. Three bodies are mentioned: the Conference of the Parties (COP), the Secretariat, and the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA).[24] Other bodies, such as the Bureau of the COP, have been provided for by the COP.

i. The Conference of the Parties

The Conference of the Parties or COP is the governing body of the convention and consists of representatives of the Contracting Parties. Meetings are held every two years.[25] The COP has adopted Rules of Procedure as required by the convention.[26]

The main functions of the COP are:

— to adopt the budget for the convention;[27]
— to consider the reports submitted by the Contracting Parties and any subsidiary body, and to review scientific, technical and technological advice on biological diversity;[28]
— to consider and adopt protocols, additional annexes as well as amendments to the convention, protocols and their annexes;[29]
— to establish subsidiary bodies deemed necessary for the implementation of the convention;[30]
— to establish appropriate forms of cooperation with other conventions dealing with matters covered by the biodiversity convention;[31]

— to take any additional action required for the achievement of the purposes of the convention.[32]

Examples of additional actions taken by the COP are the conduct of progress reviews under the convention and the identification of priorities. The COP has also prepared and adopted a Strategic Plan for the convention for the period 2002-2010.[33] Furthermore, it is responsible for the well functioning of the financial mechanism as laid down in Article 21 of the convention. This will be discussed in more detail in sub-section 2.9 (i).

The Contracting Parties are obliged to cooperate in the formulation and adoption of protocols to the convention.[34] These protocols should be adopted at a COP meeting.[35] So far, the only protocol adopted is the Cartagena Protocol on Biosafety, which entered into force on 11 September 2003.[36]

Amendments to the convention or any protocols can be proposed by any Contracting Party,[37] and should preferably be adopted by consensus. If this is not possible a two-thirds majority vote of the Contracting Parties present and voting at the COP meeting is needed.[38] A similar procedure is in place to adopt or amend annexes to the convention or to any protocol. The difference is that any Contracting Party that is unable to approve the additional annex or amendment to an existing annex has to notify the depositary in writing.[39] The depositary of the convention is the Secretary-General of the United Nations.[40]

ii. The Bureau

The Rules of Procedure for Meetings of the COP provide for the Bureau of the Conference of the Parties.[41] The Bureau is composed of a President and ten Vice-Presidents, who are elected by the COP. The Bureau gives guidance to the Secretariat with regard to the preparations for, and conduct of the meetings of the COP.[42]

iii. The Secretariat

The Secretariat of the convention is provided by UNEP,[43] and based in Montreal, Canada. The main functions of the Secretariat as laid down in the convention and the Rules of Procedure are to organise and service the COP meetings as well as the meetings of the other bodies of the convention, to perform functions assigned to it by any protocol, to coordinate with other international bodies, to collect and disseminate information, to prepare reports on the execution of its functions under the convention and to perform any other function as determined by the COP.[44] The head of the Secretariat acts as the Executive Secretary of the COP at all meetings of the COP and the subsidiary bodies.[45]

Besides the Office of the Executive Secretary, the Secretariat currently comprises five divisions; the Division for Social, Economic and Legal Matters, the Division for Scientific, Technical and Technological Matters, the Biosafety Division, the Division for Implementation and Technical Support, and the Division for Resource Management and Conference Services. The number of staff as provided for in the core budget is 57.[46] About 20 additional posts have been made available, mainly by UNEP.[47]

An audit of the Secretariat carried out in 2006 revealed that the organisational structure of the Secretariat had been very much oriented towards the servicing of meetings and that this was changing now the convention entered the implementation phase.[48] The audit was

followed by an in-dept management review of the Secretariat by an external consultant, confirming the auditor's conclusion.[49] In this report it is stated that the work load of the Secretariat has risen over the years due to an increase in the number of meetings and its tasks in relation to the implementation of the convention,[50] and that 'the Secretariat's resources, as well as its capacities and structure, are inadequate to meet the two growing demands of servicing meetings and implementation support'.[51] The additional implementation tasks include facilitating and providing technical support and capacity building activities to the Parties, enabling technology transfer, mobilising financial resources for national implementation, engaging and cooperating with other stakeholders, promoting the convention through communication, awareness building and outreach and reviewing and reporting on progress in the implementation of the convention.[52] It is further recommended to increase the number of staff included in the core budget from 60 (in 2008) to 69 for the period 2009-2010.[53]

In 2006 and 2008, the COP has authorised the Executive Secretary 'to review the terms of reference of posts in the Secretariat with a view to adjusting the staffing to meet the new challenges facing the Convention and to ensure the effective functioning of the Secretariat'.[54] However, the number of staff has not been increased as was recommended by the management review and requested by the Executive Secretary.[55] On the contrary, in the budget for 2009-2010, the number of staff included in the core budget was reduced from 60 to 57.[56]

Although the number of staff members of the Secretariat of the CBD appears to be rather small, a recent case study concluded that it 'seems to be well organised' and that its 'leaders show effective management skills'.[57]

iv. The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)

The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) provides scientific, technical and technological advice to the COP and other subsidiary bodies.[58] All Parties are able to participate in this body, which should be multidisciplinary and 'comprise government representatives competent in the relevant field of expertise'.[59] The main functions of the SBSTTA are:

— to assess the status of biodiversity and the types of measures taken in accordance with the provisions of the convention;
— to identify innovative, efficient and state-of-the-art technologies and know-how;
— to provide advice on scientific programmes and international cooperation in research and development; and
— to respond to questions of the COP and its subsidiary bodies.[60]

The SBSTTA has its own Bureau. The terms of office of its members cover two SBSTTA meetings.[61] It is possible to appoint a limited number of ad hoc technical expert groups on specific priority issues to provide scientific and technical advice and assessments.[62] These expert groups are established under the guidance of the COP.[63] Their reports should be submitted for peer review.[64]

To support the SBSTTA in setting up the peer review of documentation, the Executive Secretary, in consultation with the SBSTTA Bureau, can establish liaison groups comprising experts qualified in the field of biodiversity.[65] Examples are the liaison group on the global

strategy for plant conservation,[66] and the liaison group on the development of the Biosafety Clearing-House.[67]

The history of the SBSTTA is not without controversy. The Chairperson of the second meeting in 1997 referred to the debate over SBSTTA's 'identity crisis',[68] while the Chairperson of the third meeting stated that the SBSTTA 'lacked access to sufficient credible data and information for its recommendations to be accepted as scientific or technical'.[69] Further criticism was voiced by various representatives at the 13th meeting of the SBSTTA in February 2008. At the closing session of the meeting, the representative of Mexico for instance stated that 'given the unprecedented rate of loss of biodiversity and the urgent need for immediate action founded on the best technical, technological and scientific evidence available, the Subsidiary Body was failing in its duty to provide the Conference of the Parties with the requisite decision-making tools', while the representative of Sweden expressed its disappointment that 'there had been very little focus on scientific and technical issues'.[70] The ten scientists of the Swedish delegation subsequently published a letter in *Conservation Biology* claiming that the SBSTTA is 'increasingly being politicized, effectively halting scientific discussion and progress, strongly limiting the quality of recommendations that will be taken to the decision-making biennial Conference of the Parties' and that this body is 'increasingly dominated by politicians and professional negotiators'.[71] It appeared that only seven percent of the delegates come from academic and research institutions.[72]

The Executive Secretary of the CBD has confirmed that these concerns are widely shared.[73] Various commentators have also raised their objections to the functioning of the SBSTTA, stating that the assessment function of the SBSTTA should be strengthened,[74] and concluding that there is still no agreement on the independence and authority of this body.[75]

Meanwhile, several countries, led by France, have initiated the creation of a new body along the lines of the Intergovernmental Panel on Climate Change (IPCC), the so-called International Mechanism of Scientific Expertise on Biodiversity (IMoSEB). After further discussions and negotiations with strong involvement of UNEP, it was decided that IMoSEB should merge with the follow-up process of the Millennium Ecosystem Assessment. This resulted in the proposal for an Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). IPBES is supposed to be scientifically independent and should reduce the gap between science and policy in relation to biodiversity and ecosystem services.[76] This new body should be of value to the SBSTTA (as well as to the scientific bodies of the other biodiversity-related conventions), since it would improve the availability of scientific information and advice. The creation of IPBES will be discussed in more detail in sub-section 2.7.

v. The Working Groups

The COP can decide to establish ad hoc open-ended working groups with clearly defined mandates, including terms of reference, duration, the expected outcomes and the reporting requirements.[77] Four of these working groups are currently operational: (1) the Working Group on Article 8(j) (1998), (2) the Working Group on Access and Benefit Sharing (2000), (3) the Working Group on the Review of Implementation (WGRI) (2004), and (4) the Working Group on Protected Areas (2004).[78]

vi. The National Focal Points

Each Contracting Party is supposed to appoint several National Focal Points, whose main function is to act within their respective areas of responsibility as liaisons with the Secretariat.[79] The following National Focal Points should be established:

— Primary National Focal Points to the CBD;
— National Focal Points to the Subsidiary Body on Scientific, Technical and Technological Advice;
— National Focal Points to the Clearing-House Mechanism;
— National Focal Points to Access and Benefit Sharing;
— Competent National Authorities on Access and Benefit Sharing;
— National Focal Points to the Global Taxonomy Initiative;
— National Focal Points to the Global Strategy for Plant Conservation.[80]

The main functions of the National Focal Points are to receive and disseminate information, to ensure that Parties are represented at the convention's meetings, to respond to requests for input, to collaborate with National Focal Points in other countries and to monitor, promote, and/or facilitate national implementation of the convention.[81]

In relation to the National Focal Points to the SBSTTA it has been stated that the fact that the majority of them are not scientists, but civil servants working for ministries of environment and agriculture, might affect the selection of SBSTTA delegates and thereby its composition.[82]

vii. The Financial Budget

At its first meeting in 1994, the COP adopted the Financial Rules for the Administration of the CBD Trust Fund.[83] In these rules it is determined that this Trust Fund shall be used for funding the administration of the convention, including the Secretariat,[84] and that the fund will be financed by regular contributions from Contracting Parties (based on the UN scale for such contributions), additional contributions from Contracting Parties, and contributions from states that are not Contracting Parties to the convention, governmental, intergovernmental and non-governmental organisations and other sources.[85] The contributions must be paid in US dollars.[86]

Two voluntary trust funds were added at a later stage, the Special Voluntary Trust Fund for Additional Voluntary Contributions in Support of Approved Activities under the Convention on Biological Diversity and the Special Voluntary Trust Fund to Facilitate the Participation of Parties in the Process of the Convention on Biological Diversity.[87] The first is referred to as the BE Trust Fund, the second as the BZ Trust Fund.[88] A third voluntary trust fund, the VB Trust Fund, has been established to facilitate the participation of indigenous and local communities in the convention process.[89] The General CBD Trust Fund is referred to as the BY Trust Fund.[90]

The BY programme budgets that were decided by the COP for the years 2007–2010 are as follows:

2007: USD 11,012,400
2008: USD 11,390,600

2009: USD 11,391,900
2010: USD 12,355,100.[91]

For the years 2009-2010 the BE Trust Fund (in support of approved activities) would require USD 9,561,700 for the biennium and the BZ Trust Fund (to facilitate the participation of Parties in the process of the convention) would need USD 1,808,000 for 2009 and USD 2,938,000 for 2010.[92] The annual estimated funding requirement for the VB Trust fund for this period is USD 226,000.[93]

An admittedly simple comparison with the UNFCCC's budget shows the General Trust Fund budget of the CBD to be very substantially lower. The core programme budget for 2008-2009 for the UNFCCC amounts to over USD 54 million.[94]

The Secretariat names the Parties that are in arrears with the payment of their contribution to the General Trust Fund on the CBD website.[95] As of 28 February 2009, 69 Parties had not paid their full contributions for the years prior to 2009, totalling an amount of USD 613,585. In many cases the sums concerned are relatively small. However, some Parties, such as Brazil, Cuba, Iran, Mexico, South Korea, Saudi Arabia, owe more substantial amounts. The COP has decided that Parties that have not paid their contributions for two or more years to the BY Trust Fund are not eligible to become a member of the Bureau of the COP (except for Parties that are least developed countries or small island developing states).[96]

In relation to the voluntary trust funds, it is stated that for 2009 an amount of USD 1,242,060 has been pledged to the BE Trust Fund of which USD 632,217 still has to be paid (in relation to the years prior to 2009 an amount of USD 298,720 is still outstanding). Until 2008, pledges to the BZ Trust Fund total USD 154,769, which have not been paid. For 2009, no further pledges have been made. Pledges to the VB Trust Fund of USD 10,132 in total for the years prior to 2009 have not been paid and no further pledges were received for 2009.[97] It is clear that the amounts pledged are not even close to covering the estimated resource requirements.

Besides the contributions from the Contracting Parties very few other stakeholders have made payments to the trust funds. There appears to be one non-Contracting Party that has made a pledge to the BY Fund for 2009, which still has to be paid.[98] Two stakeholders, the Center for International Forestry Research, and the Commission for the Forests of Central Africa, have made pledges to the BE Fund. Both pledges remain unpaid.

As indicated earlier, the CBD's budgets and especially its BY programme budgets are not sufficient to cover the recommended increase in the number of staff of the CBD Secretariat. The management review revealed that most of the budget is needed for organising, conducting and reporting of the CBD meetings and that hardly any funds are left for the activities required for the implementation of the convention.[99] The report notes that 'this hinders implementation support planning, adds a large measure of uncertainty to implementation support efforts of the Secretariat, and creates additional demands on staff time to raise funds'.[100] Various commentators have also pointed out that the size of the CBD Secretariat as well as its budget are rather small.[101]

viii. Conclusion

The CBD's institutional framework appears to be up and running. There are, however, two serious points of concern: the Secretariat's capacity is insufficient to carry out its additional

implementation support tasks, and the functioning of the SBSTTA appears to be questionable. As both bodies are crucial to the implementation of the CBD, these issues need to be addressed urgently.

The problem regarding the Secretariat's capacity could be solved if the Contracting Parties, and especially those that are developed countries, would accept the conclusion of the independent management review that additional staff is needed and consequently make the necessary funding available. It is therefore disappointing that at the COP 9 meeting the number of staff has instead been reduced. This Contracting Parties' position may possibly be motivated by unease about a more active role for the Secretariat. This point will be further discussed in sub-sections 2.5 and 2.10 of this chapter.[102]

In relation to the problematic functioning of the SBSTTA, it should be noted that the creation of the new scientific body IPBES is well underway, which could be of great value to both the SBSTTA as well as to the CBD as a whole.

Until both shortcomings are properly addressed, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.3 Element 3: Environmental NGOs and Other Stakeholder Groups

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.*

The convention grants the UN and its agencies, the International Atomic Energy Agency and states that are not a Party to the convention an automatic right to be represented by an observer at the COP meetings.[103] All other bodies or agencies, including non-governmental organisations, should be 'qualified in fields relating to conservation and sustainable use of biological diversity' to be represented at the meetings of the COP.[104] A request to be admitted as an observer has to be made to the Secretariat in advance and will not be accepted if one-third of the Contracting Parties objects.[105]

The COP has decided in 2008 to prepare a list with the bodies and agencies that are regularly visiting the meetings of the COP and other bodies of the convention. They are no longer required to follow the strict procedures, such as submitting statutes, by-laws, rules or terms of reference and other information before each meeting.[106]

Four sub-goals in the Strategic Plan of the convention, namely 1.2, 1.3, 4.3 and 4.4, are directly related to the cooperation with stakeholders.[107] The first two of these sub-goals deal with the promotion of cooperation between the CBD and other international instruments and processes. Sub-goal 4.3 focuses on the involvement of indigenous and local communities in the implementation of the convention, and sub-goal 4.4 states that 'key actors and stakeholders, including the private sector, are engaged in partnership to implement the Convention'.[108]

The COP has now taken numerous decisions on cooperation with different stakeholders and stakeholder groups, especially international organisations and conventions, stressing the importance of close cooperation in areas such as exchange of information, improvement of efficiency and introduction of liaison arrangements.[109] Meanwhile, the Secretariat has signed partnership agreements with over 100 organisations, including (environmental) NGOs, conventions, universities and scientific institutions.[110] Before each

COP meeting it prepares a note for the COP on progress made in relation to the cooperation with other stakeholders.[111]

In a recent case study, analysing the effects of the CBD Secretariat as an intergovernmental organisation, it is stated that it 'can be regarded as comparatively successful in fostering international co-operation in implementing CBD'.[112]

The most important stakeholders of the convention will be looked at in more detail below.

i. Environmental NGOs

The COP has recognised the importance of cooperation with environmental NGOs, and in a recent statement the Executive Secretary of the convention underlined their positive involvement in policy development as well as in the implementation of the convention.[113]

On the CBD website cooperation with the following environmental NGOs is highlighted: BirdLife International, Conservation International, Fauna and Flora International, the IUCN, Plantlife International, The Nature Conservancy, Wildlife Conservation Society, World Resources Institute, the WWF.[114] The convention is especially interested in the data collected by these NGOs and many of them are involved in the programme of work on protected areas. Several NGOs also participate in a task force that was set up to support the realisation of the 2010 biodiversity target.

With some environmental NGOs cooperation has been formalised through so-called partnership agreements. The Secretariat has signed either a Memorandum of Cooperation (MOC) or a Memorandum of Understanding (MOU) with BirdLife International, Conservation International, the IUCN, The Nature Conservancy, the International Ocean Institute (IOI) and Wetlands International. The contents of these agreements varies depending on the area of expertise of the environmental NGO, but are usually very general in nature.

Partnership agreements have also been signed with many other NGOs, including universities, natural history museums and botanic gardens. These agreements often involve cooperation in areas such as capacity building and/or scientific support and will therefore be discussed in more detail in the next paragraph.

The number of environmental and other NGOs represented at the COP meetings is remarkable. At the COP9 meeting in 2008, about 500 non-governmental bodies were admitted as observers.[115] Many (environmental) NGOs are represented at the meetings of the SBSTTA and the various working groups as well.

ii. Scientists

The environmental (and other) NGOs also play an important role in providing the bodies of the CBD with relevant scientific information. For instance, the IUCN manages the Red List of Threatened Species,[116] BirdLife International identifies important bird areas (IBAs),[117] Plantlife International is building a database of important plant areas (IPAs),[118] and the WWF has developed the so-called Living Planet Index, which measures trends in the Earth's biological diversity.[119]

The Secretariat has signed partnership agreements with some scientific organisations such as the International Union of Biological Sciences (IUBS) and DIVERSITAS.[120] The IUBS cooperates with the CBD on the implementation of programmes dealing with the conservation and sustainable use of biological diversity and on schemes to prevent and

reduce physical alterations and destruction of habitats.[121] The collaboration with DIVERSITAS includes activities such as disseminating and managing information and research, preparing documents and providing advice.[122] An MOC has also been signed with the Global Invasive Species Programme (GISP), which is an international partnership, established in 1997, dedicated to addressing the global threat of invasive species.[123] The focus of this agreement is on information exchange and capacity building activities.[124]

Over the years, important biodiversity-related scientific assessments, often contributed to by thousands of scientists, have been carried out, such as the Millennium Ecosystems Assessment (MA), the Global Biodiversity Outlook and the Global Environmental Outlook. Studies like these are usually initiated by international organisations, such as the UN or its specialised agencies or programmes, and will be discussed in more detail in sub-section 2.7.

The launch of the Group on Earth Observations (GEO) was an initiative of the Group of Eight leading industrialised countries (G8). GEO is a voluntary partnership of governments and international organisations, which aims to construct a Global Earth Observation System of Systems (GEOSS) focusing on various societal benefits including biodiversity.[125] An MOU has been signed between the secretariats of CBD and GEO in 2008 with the objective to collaborate closely.

Cooperation with universities, museums and botanical gardens is also seen as important by the convention, especially in relation to obtaining scientific information and developing education and training activities. In 2006, an MOU was signed by the Secretariat with a consortium of scientific partners, including the Royal Botanic Gardens, Kew, UK, the Smithsonian National Museum on Natural History, USA and the Muséum National d'Histoire Naturelle de France, to further the development of biodiversity-related training and education activities in developing countries.[126] In the same year, a Letter of Intent was signed with several Canadian universities and research institutions with the objective to exchange relevant technical and scientific information and to enhance the provision of scientific and technical support.[127]

iii. Bodies of Biodiversity-Related and Other Environmental Conventions

The CBD Secretariat is cooperating with the secretariats of various other biodiversity-related and environmental conventions. At the second CBD COP meeting in 1995, the COP adopted a decision concerning the cooperation with other biodiversity-related conventions, stressing the importance of working together and avoiding duplication of activities.[128] Since then, relationships with the other four biodiversity-related conventions assessed in this study have been developed. In 1996, the Ramsar Convention was invited by the CBD COP to cooperate as lead partner in the implementation of wetland related activities.[129] An MOU with the Secretariat of this convention was signed the same year and Joint Work Plans on various wetland issues followed. The Executive Secretary of the CBD refers to the relationship with the Ramsar Convention as 'particularly advanced'.[130] An MOC with the Secretariat of the CMS was also signed in 1996. In 2002, the CMS was recognised by the CBD COP as the 'lead partner in conserving and sustainably using migratory species over their entire range'. The COP further acknowledged that the CMS 'provides an international legal framework through which range States can cooperate on migratory species issues'.[131] A Joint Work Programme has been developed, which covers cross-cutting areas such as marine and coastal biodiversity, inland waters, forest and agricultural biodiversity, protected areas and alien species.[132] An MOC and Work Plan with the CITES Secretariat are

also in place. Areas of cooperation are the Global Strategy for Plant Conservation and bushmeat issues.[133] No partnership agreement or Joint Work Plan have yet been agreed with the World Heritage Convention, although an MOC has been signed with UNESCO,[134] also covering the World Heritage Convention. It is indicated on the CBD website that a specific agreement with the World Heritage Convention is in development.[135]

In 2004, the CBD COP took the initiative to set up a Liaison Group of Biodiversity-related Conventions 'to enhance coherence and cooperation'.[136] Besides the five biodiversity-related conventions assessed in this study, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), which operates under auspices of the FAO, has, since 2006, also participated in this liaison group.[137] Subjects that have been discussed at the latest meeting in 2008 are for instance the indicators for the 2010 biodiversity target,[138] the preparation for the Global Biodiversity Outlook,[139] and the celebration of the International Year of Biodiversity 2010.[140] So far only a few meetings of the Liaison Group of Biodiversity-related Conventions have taken place and it appears that the group has received some criticism from the United Nations Environmental Management Group for lack of progress.[141]

At the CBD COP 9 meeting, the liaison group was requested to increase the frequency of its meetings,[142] and to identify options to improve implementation of and cooperation among the biodiversity-related conventions.[143] The COP also underlined the importance of improved cooperation between the scientific and technical bodies of the conventions.[144] Meanwhile, the first meetings of the chairs of these bodies have taken place.[145]

At an early stage, the CBD COP also recognised the overlap in relation to several issues and obligations with the other two Rio conventions, the UNFCCC and the UNCCD. At the third COP meeting in 1996, the Executive Secretary of the CBD was requested to develop closer relations with both conventions.[146] In 1998, an MOC was signed with the UNCCD, focusing on institutional cooperation, exchange of information and coordination of work programmes, which was followed by a Joint Work Programme.[147] There is no partnership agreement with the UNFCCC, but the CBD COP has established an Ad Hoc Technical Expert Group on Biodiversity and Climate Change, which includes the involvement of the Intergovernmental Panel on Climate Change (IPCC) and experts from the bodies of the UNFCCC. Joint activities such as workshops and outreach activities have been organised.[148]

In 2001, a Joint Liaison Group was established by the three Rio conventions. Participants are the Executive Secretaries, members of the secretariats and officers of the scientific bodies. The Joint Liaison Group focuses on subjects such as adaptation, capacity building and technology transfer.[149] The group has also issued joint publications.[150]

Close collaboration exists as well with the FAO and its International Plant Protection Convention (IPPC).[151] An MOC was signed in 2004 with the FAO on cooperation with the Secretariat of the IPPC and a Joint Programme of Work is in place. Special attention is afforded to the international framework on invasive alien species.[152]

The CBD Secretariat is also cooperating with the United Nations Division for Ocean Affairs and the Law of the Sea (DOALOS) in relation to the prevention and mitigation of the impacts of some activities to selected seabed habitats. An information document on this topic was jointly prepared.[153]

The United Nations Forum on Forests (UNFF) established the Collaborative Partnership on Forests (CPF), which comprises 14 international organisations and conventions, including the CBD.[154] The objectives of the CPF are to support the work of the UNFF and to foster increased cooperation and coordination on forests.[155] It appears that the Secretariat of the

CBD is actively involved in the activities of the CPF and serves as a focal agency for forest biodiversity and traditional forest-related knowledge.[156] An MOU with the UNFF was signed in December 2009 to further enhance the collaboration.

The CBD Secretariat has also signed partnership agreements with several regional conventions, such as an MOU with the secretariats of the Convention on the Protection of the Alps (Alpine Convention) and the Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention),[157] a Letter of Intent with the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention),[158] an MOC with the Secretariat of the Convention on European Wildlife and Natural Habitats (Bern Convention),[159] and an MOC with the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention).[160]

iv. International and Regional Organisations and National Departments

Close relations exist between the CBD and UNEP, which provides the CBD's Secretariat in Montreal.[161] One of UNEP's tasks is to develop 'coherent inter-linkages among existing international environmental conventions'.[162] In practice, UNEP facilitates cooperation between the CBD and the other biodiversity-related and environmental conventions through initiatives such as encouraging exchange of information, creating partnerships on cross-cutting issues and streamlining national reporting.[163] UNEP-WCMC is the collaboration between UNEP and the WCMC 2000, which provides the CBD with crucial information in relation to biodiversity.[164] An agreement has been signed with UNEP-WCMC in 2006 with the intention to include technical and capacity building expertise within UNEP-WCMC to support the CBD Parties.

The Global Environment Facility (GEF) is the operating entity of the financial mechanism supporting the CBD.[165] An MOU between the CBD COP and the Council of the GEF was signed in 1996.[166] The GEF will only finance activities that are in line with the guidance provided by the CBD COP and it submits a report on its activities in relation to the CBD before each COP meeting.[167] The projects financed by the GEF are managed through various agencies including UNEP, the UNDP, the FAO and the World Bank.[168] It appears that initially the cooperation with the GEF was less than smooth. The GEF Council had some concerns relating to the guidance by the CBD COP and it was only in 2007 that an official working visit by the CEO of the GEF to the CBD offices in Montreal took place.[169] At that occasion adjustments to address the GEF's concerns were agreed.[170]

An MOC has been signed with the World Bank in 1997.[171] In the MOC it is indicated that the World Bank commits substantial funding to 'targeted biodiversity components' in the Bank's lending portfolio, and that it has therefore an important role to play in implementing the CBD.[172] Various areas of cooperation and coordination between the two parties have been identified in the MOC.

A good working relationship seems to exist between the CBD and the FAO,[173] which dates back to the CBD's early days.[174] The Executive Secretary of CBD recently referred to this cooperation as 'strengthened' and 'close'.[175] A revised MOC has been signed with the FAO in 2005 focusing on exchange of information, cooperation and the development of joint activities.[176]

A general MOU with the UNDP has been signed recently.[177] The main purpose is 'to increase the efficiency and effectiveness of work to mainstream biodiversity into development',[178] while there is a strong focus on cooperation and implementation.[179]

An MOC has also been signed with UNESCO in 1998,[180] and close collaboration has developed since.[181] In the MOC, it is stated that the focus will be on science, education and culture with the objective to avoid overlap and to ensure effective cooperation in joint activities.[182]

Relations with the WTO appear to have been more difficult.[183] Although cooperation has been increased and high level discussions have taken place,[184] no partnership agreement has been signed and so far the CBD has also not been able to obtain observer status at the WTO.[185]

An MOU has been signed with the World Intellectual Property Organisation (WIPO).[186] The WIPO aims to promote the protection of intellectual property and to develop and apply international norms and standards in this field. Since intellectual property protection does play a significant role in relation to issues such as access to genetic resources and benefit-sharing and the protection of knowledge, cooperation in this area is important.

Other UN agencies with whom the CBD has signed partnerships agreements are the United Nations Conference on Trade and Development (UNCTAD), the United Nations Industrial Development Organisation (UNIDO), the United Nations Institute for Training and Research (UNITAR), as well as various regional commissions of the United Nations.[187]

Partnership agreements have also been signed with various regional organisations,[188] and ministries and states of a number of countries.[189]

v. Indigenous Peoples

Article 8 (j) of the convention states that Contracting Parties shall 'respect, preserve and maintain knowledge, innovation and practices of indigenous and local communities'. The COP has acknowledged that for the implementation of this and other provisions of the convention the full and active participation of indigenous and local communities is essential.[190] To facilitate this process the International Indigenous Forum on Biodiversity (IIFB) was established during the third COP meeting in 1996.[191] The forum consists of representatives of indigenous governments, indigenous NGOs, scholars and activists and is organised around the CBD COP meetings and other relevant international environmental meetings. It coordinates the strategies for these meetings and gives advice on the issues related to indigenous peoples.[192] Members of the IIFB include the Foundation for Aboriginal and Islander Research Action, Call of the Earth and the Confederacion de Pueblos Indigenas de Bolivia.

Another group that is relevant in this respect is the CBD Alliance, which is 'a loose network of activists and representatives from nongovernmental organisations (NGOs), community based organisations (CBOs), social movements and indigenous peoples organisations (IPOs) advocating for improved and informed participation in Convention on Biological Diversity (CBD) processes'.[193] A newsletter is prepared in cooperation with the CBD Secretariat, which is published on the CBD website.

No partnership agreements have been signed with these groups.

vi. Corporate Sector

The involvement of the corporate sector with the CBD has remained modest. There are usually not many business representatives at the CBD meetings and only a few partnership agreements have been signed. At the COP 8 meeting, a special decision on private-sector engagement was adopted, which states that 'the private sector is arguably the least engaged of all stakeholders in the implementation of the Convention, yet the daily activities of business and industry have major impacts on biodiversity'.[194] To improve this situation, the CBD and UNEP have organised the so-called Business and the 2010 Biodiversity Challenge Conferences, of which the latest took place in December 2009 in Jakarta, Indonesia. The objective of these meetings was to 'effectively engage the private sector in addressing biodiversity by stressing the link between biodiversity and core business and by highlighting best case practices, including life cycle approaches and incentive mechanisms'.[195]

Partnership agreements have been signed with ICI Environment,[196] Airbus SAS,[197] and the Union for Ethical BioTrade. The earliest agreement is the MOC with ICI Environment signed in 1998. 'Payments of funds' by ICI Environment concerning 'specific activities' is possible under this MOC,[198] but it is unclear whether any payments have been made. The more recently signed MOU with Airbus SAS has as its objective to raise public awareness of the importance of biodiversity, focusing especially on children and youth.[199] Joint activities under the MOU 'are subject to the availability of funding for that purpose'.[200] The objective of the MOU signed with the Union for Ethical BioTrade is to encourage companies involved in biotrade 'to adopt and promote good practice as a contribution towards the 2010 target and the objectives of the Convention'.[201]

In 2008, Toyota Motor Corporation launched its 2008 Grant Themes, which includes biodiversity conservation. The possibility to apply for small scale grants for biodiversity-related activities is also published on the CBD website, which refers to Toyota as a 'business partner'.[202]

The UN Guidelines on Cooperation between the United Nations and the Business Sector are applicable in relation to the acceptance by the CBD of financial contributions from the corporate sector.[203]

vii. Multi Stakeholder Partnerships

The Secretariat has also taken initiatives to create partnerships with members of multiple stakeholder groups. One example is the creation of the informal consortium of partners to facilitate the implementation of the programme of work on protected areas. Partners of the consortium include several environmental NGOs, the IUCN's World Commission on Protected Areas, the European Commission, the German Federal Agency for Nature Conservation and the Organisation of East Caribbean States Protected Areas and Associated Livelihoods Project.[204] The Global Biodiversity Forum is also a partnership of various stakeholders, including the CBD Secretariat, that provides a global forum for debate of the relevant issues in relation to the conservation and sustainable use of biodiversity and the implementation of the CBD.[205] Other partnerships of a similar nature are for instance the Global Partnership for Plant Conservation,[206] the Global Invasive Species Programme (GISP),[207] the Global Island Partnership (GLISPA) and the Great Apes Survival Project (GRASP).[208]

At its meeting in 2004, the COP has requested the Executive Secretary 'to examine options for a flexible framework between all relevant actors, such as a global partnership on biodiversity' with the intention to enhance implementation of the convention through broad cooperation.[209] To date, this global partnership has not materialised.

viii. Conclusion

The cooperation of the bodies of the convention, especially the Secretariat, with environmental NGOs and other stakeholder groups appears to be well developed. The COP has shown its involvement by adopting numerous decisions on this subject and before each COP meeting, the Secretariat prepares an extensive note on any new developments. Partnership agreements have been signed with a long list of organisations. A recent study, which analysed the effects of the Secretariat as an intergovernmental organisation, confirmed that the Secretariat is comparatively successful in this area.

There is still room for improvement however. For instance, the Liaison Group of Biodiversity-related Conventions appears to have made little progress and since the CBD has instigated this important initiative, it should take the lead in pushing it forward. The cooperation with the WTO also seems to advance with some difficulty, while the involvement with the corporate sector is still in its infancy. Besides, the sheer number of partnership agreements could pose a management challenge to the Secretariat to build on these and achieve tangible results.

Nevertheless, the overall impression is positive and the contribution of this element to the effectiveness of the convention is considered to be **satisfactory**.

2.4 Element 4: Objectives, Measures and Timing

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.*

Before examining the objectives and measures of the convention in more detail it is important to verify whether the underlying problem(s) the convention intends to address have been clearly identified. This appears to be the case. The preamble of the convention states that Contracting Parties are 'concerned that biological diversity is being significantly reduced by certain human activities',[210] and that 'it is vital to anticipate, prevent and attack the causes of significant reduction or loss of biological diversity at source'.[211] Furthermore, it is recognised that there is a 'general lack of information and knowledge regarding biological diversity' and an 'urgent need to develop scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures'.[212]

In the Strategic Plan of the convention, adopted by the COP in 2002, it is laid down that 'the rate of biodiversity loss is increasing at an unprecedented rate, threatening the very existence of life as it is currently understood' and that 'the maintenance of biodiversity is a necessary condition for sustainable development, and as such constitutes one of the great challenges of the modern era'.[213]

The following objectives and measures, laid down in the convention and additional COP decisions, are supposed to address these problems.

i. The Objectives

The objectives of the convention as defined in the convention itself are threefold:

(1) the conservation of biological diversity;
(2) the sustainable use of its components;
(3) the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.[214]

The terms 'biological diversity', 'sustainable use' and 'genetic resources' have been defined in the convention.[215] The term 'conservation' has not been defined, apparently because it was not possible to agree on a definition. This omission has been criticised by Contracting Parties and commentators alike.[216]

Various commentators have noted that the objectives of the convention balance the interests of the developed countries, especially the conservation of biodiversity, and those of the developing countries, particularly the transfer of funds and technology.[217]

The Strategic Plan of the convention added an additional 'mission' to the convention to commit the Contracting Parties to 'a more effective and coherent implementation of the three objectives of the Convention'. The mission is 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level'.[218] Subsequently, a long list of targets, sub-targets and indicators was introduced to be able to measure progress towards the realisation of this mission, which is generally referred to as the 2010 Biodiversity Target. This subject will be discussed in more detail later in this sub-section as well as in sub-sections 2.5 and 2.7. See also Box II and Box III for more details.

ii. Measures and Timing

The measures that are laid down in the convention to achieve the three objectives are extensive. To assist the Contracting Parties with the implementation of these provisions the COP has also developed so-called thematic programmes and cross-cutting issues. The thematic programmes are concerned with some of the larger ecosystems, such as forests and inland waters. The actions taken in relation to the cross-cutting issues, which touch on general principles, should bring cohesion to the thematic programmes and the other activities of the CBD. The thematic programmes and the programmes for the cross-cutting issues often include time-related targets as well. The individual cross-cutting issues and thematic programmes will be shown in **bold** in the text of this sub-section for convenience.

In addition, the convention anticipates the formulation and adoption of protocols to the convention in which more specific requirements can be agreed for certain issues.[219]

This paragraph will discuss the measures laid down in the convention and any subsequently introduced additional measures, as well their time-related targets if adopted.

Conservation and Sustainable Use

Article 6 of the convention requires Contracting Parties to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity,[220] and to integrate these into relevant sectoral or cross-sectoral plans, programmes and policies.[221] Over the years, the COP has developed guidance for the Contracting Parties to assist them with the development and implementation of the national strategies and action plans.[222] At a later stage, the Contracting Parties were requested to also include measurable goals and targets, which should fit in with the global targets developed in relation to the 2010 Biodiversity Target.[223]

Furthermore, Contracting Parties should take *in-situ* conservation measures 'as far as possible and as appropriate'.[224] For example, Contracting Parties are:

— to establish a system of protected areas and to develop guidelines for the selection, establishment and management of these areas 'where necessary';[225]
— to regulate and manage important biological resources to ensure their conservation and sustainable use;[226]
— to promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;[227]
— to promote environmentally sound and sustainable development in areas adjacent to protected areas;[228]
— to rehabilitate and restore degraded ecosystems and promote recovery of threatened species;[229]
— to establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology;[230]
— to prevent the introduction of, and control or eradicate those alien species which threaten ecosystems, habitats and species;[231]
— to endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;[232]
— to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities and to promote their wider application with the approval and involvement of their holders and to encourage the equitable sharing of the benefits arising from the utilisation of this knowledge and these innovations and practices, subject to national legislation;[233]
— to develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations;[234]
— to regulate or manage the relevant processes and categories of activities where a significant adverse effect on biological diversity has been determined;[235]
— to cooperate in providing financial and other support for *in-situ* conservation, particularly to developing countries.[236]

Some of these Article 8 measures have been identified as cross-cutting issues by the COP and programmes of work or guidelines have been adopted to assist the Contracting Parties with their implementation. The first cross-cutting issue that will be discussed is **protected areas**.[237] A programme of work on this subject was adopted by the COP in 2004.[238] The programme consists of four elements. For each element goals, activities and targets have

been established.[239] Targets have been set for 2008, 2010, 2012 and 2015. The two main targets are the establishment of a global network of comprehensive, representative and effectively managed national and regional protected area systems for terrestrial areas in 2010 and for marine areas in 2012.[240]

A large number of partner organisations are involved in the implementation of the programme of work, of which the World Commission on Protected Areas of the IUCN and UNEP-WCMC are especially relevant, since they are doing substantial work on protected areas, such as the development of management categories (IUCN World Commission on Protected Areas) and the management of a worldwide dataset on protected areas (IUCN World Commission on Protected Areas and UNEP-WCMC jointly).[241]

Also in 2004, the Working Group on Protected Areas was established.[242] Its mandate includes the identification of marine areas beyond the limits of national jurisdiction as protected areas, the mobilisation of financial resources and the consideration of reports from different stakeholder groups.[243] It should be noted however that the UN General Assembly decided in 2006 that the Convention on the Law of the Sea 'sets out the framework within which all activities in the oceans and seas must be carried out'.[244] The implication of this decision is that the CBD's field of application is restricted to areas under sovereignty or national jurisdiction of the Contracting Parties. This issue will be discussed in more detail in this sub-section under the thematic programme for marine and coastal biodiversity.

Another cross-cutting issue related to Article 8 is **invasive alien species**.[245] The COP adopted Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats or Species in 2002.[246] Subsequent decisions on the subject were agreed to further clarify specific points,[247] referring to the extensive number of international and regional agreements as well as voluntary guidelines and codes of conduct that address this issue as well.[248] The bodies of the CBD work closely with several organisations on this issue, such as the Global Invasive Species Programme (GISP) and the IUCN Invasive Species Specialist Group. They have developed various products and publications, which could assist Contracting Parties with the implementation of this measure.

Article 8 (j) concerns **traditional knowledge, innovations and practices**, which have also become a cross-cutting issue. A programme of work on the Implementation of Article 8 (j) and Related Provisions was adopted in 2000,[249] with the objective to ensure the participation of indigenous and local communities at all stages and levels of implementation of the convention. Already in 1998, a Working Group on Article 8 (j) was established.[250] Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities, the so-called Akwé: Kon guidelines,[251] were adopted in 2004.[252] The participation and involvement of indigenous and local communities in development planning are essential elements of these guidelines.

Article 9 of the convention requires Contracting Parties to take *ex-situ* measures 'as far as possible and appropriate', which should predominantly be for the purpose of complementing *in-situ* measures.[253] A good example is the requirement for Contracting Parties to adopt measures for the recovery and rehabilitation of threatened species and to reintroduce them into their natural habitats.[254]

With regard to the sustainable use of components of biological diversity, as required by Article 10 of the convention, Contracting Parties should 'as far as possible and as appropriate':

—` integrate consideration of the conservation and sustainable use of biological resources into national decision-making;[255]
— adopt measures relating to the use of biological resources to avoid or minimise adverse impacts on biological diversity;[256]
— protect and encourage customary use of biological resources that are compatible with conservation and sustainable use and support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced;[257]
— encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.[258]

In 2000, **sustainable use of biodiversity** has also been defined as a cross-cutting issue by the COP.[259] Several workshops on this issue resulted in the so-called Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, which consist of 14 principles and operational guidelines.[260] These were adopted by the COP in 2004.[261]

Identification and Monitoring

Article 7 of the CBD requires that Contracting Parties should 'as far as possible and as appropriate' identify components of biodiversity important for its conservation and sustainable use. An indicative list of categories can be found in Annex I to the convention.[262] Listed in Annex I are descriptive examples of ecosystems and habitats, for instance those that 'contain high diversity' or those that are 'required by migratory species', as well as a descriptive list of species and communities, such as those that are 'threatened' or 'of medical, agricultural or other economic value'.

These important components of biodiversity are supposed to be monitored by the Contracting Parties.[263]

Identification, Monitoring, Indicators and Assessments have also become a cross-cutting issue with the focus on the development of national monitoring programmes and indicators of biodiversity.[264] Many COP decisions and SBSTTA recommendations on this topic have been adopted, but the most significant document is probably the guidance developed by the Executive Secretary of the CBD in 2003: Designing National-level Monitoring Programmes and Indicators.[265]

Impact Assessment and Minimising Adverse Impacts

All measures laid down in the convention under this heading in Article 14 of the CBD, are only required 'as far as possible and as appropriate'. Contracting Parties should:

— introduce procedures requiring environmental impact assessment of proposed projects that are likely to have significant adverse effects on biological diversity, and public participation should be allowed;[266]

— introduce appropriate arrangements to ensure that the environmental consequences of the programmes and policies that are likely to have significant adverse impacts on biodiversity are duly taken into account;[267]
— promote notification of any activities under their jurisdiction or control that are likely to significantly affect adversely the biodiversity of other states or areas beyond their jurisdiction or control, and should notify potentially affected states immediately in case of imminent or grave danger or damage;[268]
— promote national arrangements for emergency responses to activities or events, which present a grave and imminent danger to biodiversity.[269]

Impact assessment has also been identified as a cross-cutting issue. The fact that the protection of biodiversity is often not sufficiently included in national impact assessment procedures is of particular concern.[270] To address this, the Executive Secretary of the CBD prepared the Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment, which were adopted by the COP in 2006.[271]

The subject of **liability and redress**, including restoration and compensation for damage to biodiversity, which the COP is required by the convention to examine,[272] has become a cross-cutting issue as well. The Executive Secretary drafted a synthesis report on this issue including information on national and domestic measures and experiences, which was published in 2008.[273] The COP adopted this report at COP 9 and decided to consider further steps at its next meeting.[274]

Research and Training

This issue, which is covered by Article 12, requires Contracting Parties to establish and maintain programmes for scientific and technical education and training and to promote and encourage research in the area of biodiversity. The special needs of developing countries should be taken into account.[275]

Public Education and Awareness

The significance of education and awareness of the public has been recognised in Articles 12 and 13 of the convention. Contracting Parties are supposed to establish and maintain programmes for scientific and technical education and training in biodiversity and to promote their importance.

The COP has also identified **communication, education and public awareness** (CEPA) as a cross-cutting issue. In 2006 a shortlist of priority activities was adopted by the COP for the programme of work on CEPA.[276]

Incentive Measures

Contracting Parties should according to Article 12, 'as far as possible and as appropriate', adopt incentives that are of an economic and social nature to encourage the conservation and sustainable use of components of biological diversity. The COP has made **economics, trade and incentive measures** a cross-cutting issue and adopted a programme of work on incentives in 2000.[277] One of the targets is 'the creation of incentives for integration of biodiversity concerns in all sectors'.[278] In 2004, the COP adopted 'proposals for the

application of ways and means to remove or mitigate perverse incentives',[279] recognising this to be 'a crucial element in national and global strategies to halt the degradation and loss of biodiversity'.[280] Scientists have estimated that the annual amount globally spent on perverse subsidies is between USD 950 and USD 1950 billion.[281]

In relation to economics and trade, various publications were issued by the CBD to underline the importance of taking biodiversity into account.[282] The COP has also welcomed the G8 initiative, announced in 2007 in Potsdam, Germany, to carry out an international study on the economics of ecosystems and biodiversity (TEEB).[283] The study is supposed to present the economic costs of the global loss of biodiversity.[284]

Access to Genetic Resources

Article 15 is the main provision in relation to access that should be given to genetic resources originating in the territories of certain Contracting Parties (usually developing countries), and the sharing of the benefits that would arise out of the commercial and other utilisation of these resources.[285]

Contracting Parties that are countries of origin of genetic resources should endeavour to facilitate access to these resources for environmentally sound uses by other Contracting Parties, but access should be on mutually agreed terms and subject to prior informed consent of the Contracting Party providing these resources.[286]

Countries of origin that facilitate access to their genetic resources should be able to participate in scientific research developed and carried out by the Contracting Party that has been given access to these resources.[287] The aim of the convention is that the results of research and development and the benefits that arise from the commercial and other utilisation of genetic resources should be shared in a fair and equitable way with Contracting Parties providing such resources.[288]

Access to genetic resources and benefit sharing is also a cross-cutting issue. To give effect to these CBD measures discussed above, a panel of experts as well as an ad hoc working group further examined the subject, leading in 2002 to the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilisation.[289] At COP 7 the working group was mandated to start negotiations for an international regime on this issue,[290] which should be finalised before the tenth COP meeting in 2010.[291]

Access to and Transfer of Technology and Technical and Scientific Cooperation

This issue is covered by Article 16 of the CBD. Contracting Parties should undertake to provide and/or facilitate access for and transfer to other Contracting Parties of technologies, including biotechnology, that are relevant to the conservation and sustainable use of biodiversity.[292] Access to and transfer of technology to developing countries shall be provided and/or facilitated under fair and most favourable terms, in accordance with the financial mechanism provided by the convention.[293] In relation to genetic resources, this includes, under certain conditions, technology protected by patents and other intellectual property rights.[294] Contracting Parties should cooperate, subject to national legislation and international law, to ensure that patents and other intellectual property rights are supportive of and do not run counter to the objectives of the convention.[295]

Technical and scientific cooperation concerning conservation and sustainable use of biodiversity should be promoted by the Contracting Parties pursuant to Article 18.

A programme of work for the cross-cutting issue of **technology transfer and cooperation,**[296] and a strategy for its implementation have been developed.[297]

Handling of Biotechnology and Distribution of its Benefits

The requirements in relation to this subject have been laid down in Article 19 of the CBD. Contracting Parties must take legislative, administrative or policy measures to provide for the effective participation in biotechnological research activities by those Contracting Parties, especially developing countries, that provide the genetic resources for this research.[298]

The results and benefits arising from biotechnologies based upon these genetic resources should be accessible on a fair and equitable basis to the Contracting Parties that provide these genetic resources.[299] Contracting Parties should consider the need for and modalities of a protocol setting out appropriate procedures for the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have an adverse effect on the conservation and sustainable use of biological diversity.[300]

The programme of work on technology transfer and technological and scientific cooperation and the strategy dealing with its practical implementation are also applicable to this issue.[301]

Cooperation and Exchange of Information

Article 5 requires that each Contracting Party should, 'as far as possible and as appropriate', cooperate with other Contracting Parties on the conservation and sustainable use of biodiversity in areas beyond national jurisdiction. Cooperation concerning emergency responses to events which present a grave and imminent danger to biodiversity is mentioned separately in Article 14, paragraph 1 (e).

Exchange of information between Contracting Parties with regard to issues covered by the convention should be facilitated pursuant to Article 17.

Financial Resources and Financial Mechanism

Article 20 and 21 are the main provisions in relation to this issue. Contracting Parties that are developing countries or countries with economies in transition will receive new and additional financial resources to enable them to implement the convention.[302] The COP has to establish a list of Contracting Parties that are developed countries that are supposed to provide these resources. Other countries may voluntarily assume these obligations.[303] A special financial mechanism will be put in place to provide the eligible Contracting Parties with financial resources.[304]

Reporting

Regular reporting by the Contracting Parties to the COP on the measures they have taken and their effectiveness in meeting the objectives of the convention is required pursuant to Article 26.

Additional Cross-cutting Issues

A more recent cross-cutting issue is **Biodiversity for Development**, which links biodiversity with poverty alleviation.[305] At the ninth meeting of the COP, it was decided that a multi-year plan of action on biodiversity for development will be prepared.[306]

As of 2000, the impact of climate change on biodiversity has been on the agenda of the COP meetings and **climate change and biodiversity** has also become a cross-cutting issue. An ad hoc technical expert group was established in 2001, which has published two technical reports on the subject.[307] At its eighth meeting, the COP has underlined the importance 'to integrate biodiversity considerations into all relevant national policies, programmes and plans in response to climate change',[308] and it was recognised that follow-up on this subject through the joint liaison group of the Rio conventions is essential.[309] More recently, a new ad hoc technical expert group on biodiversity and climate change was established whose purpose it is to provide the UNFCCC with relevant information on biodiversity.[310]

The **ecosystem approach** defined by the COP as 'a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way', is another cross-cutting issue.[311] In Decision V/6, 12 principles of the ecosystem approach are presented[312] as well as five points that could be used as operational guidance.[313]

In 2002, the COP adopted the **global strategy for plant conservation** and identified it as a cross-cutting issue.[314] The long-term objective of the strategy is 'to halt the current and continuing loss of plant diversity'.[315] The strategy includes 16 targets for the year 2010,[316] and forms a framework for the formulation of national policies and a basis for monitoring.[317] To further the implementation of the strategy, the Global Partnership for Plant Conservation was launched at COP 7.[318] Amongst the numerous partners are many botanical gardens from around the world.[319] A flexible coordination mechanism was established at the same time, consisting of the Global Partnership for Plant Conservation, various liaison groups, national focal points and the Secretariat.[320]

Box II: The CBD's Global Strategy for Plant Conservation: The Sixteen Targets for 2010

Target 1: A widely accessible working list of known plant species, as a step towards a complete world flora.

Target 2: A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels.

Target 3: Development of models with protocols for plant conservation and sustainable use, based on research and practical experience.

Target 4: At least 10 per cent of each of the world's ecological regions effectively conserved.

Target 5: Protection of 50 per cent of the most important areas for plant diversity assured.

Target 6: At least 30 per cent of production lands managed consistent with the conservation of plant diversity.

Target 7: 60 per cent of the world's threatened species conserved *in-situ*.

Target 8: 60 per cent of threatened plant species in accessible *ex-situ* collections, preferably in the country of origin, and 10 per cent of them included in recovery and restoration programmes.

Target 9: 70 per cent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained.

Target 10: Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems.

Target 11: No species of wild flora endangered by international trade.

Target 12: 30 per cent of plant-based products derived from sources that are sustainably managed.

Target 13: The decline of plant resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted.

Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, educational and public-awareness programmes.

Target 15: The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this Strategy.

Target 16: Networks for plant conservation activities established or strengthened at national, regional and international levels.

Taxonomy is the science of naming, describing and classifying organisms and includes all plants, animals and micro-organisms.[321] Contracting Parties have acknowledged that there are shortcomings in taxonomic knowledge, which could impair the management of biodiversity. This has led to the creation of the **global taxonomy initiative,** which is one of

the cross-cutting issues. The global taxonomy initiative was adopted by the COP in 1998 and consists of a list of possible actions.[322] Subsequently, a programme of work for the global taxonomy initiative was adopted in 2002, including five operational objectives and 18 planned activities.[323] This program of work was reviewed and amended in 2006.[324] Some targets in relation to timing have been included as well.

Another cross-cutting issue is **tourism and biodiversity**. Although tourism could bring significant economic benefits, which might be especially relevant to developing countries, it could also be a major cause of degradation of the environment. In 2004, the COP adopted the CBD guidelines on biodiversity and tourism,[325] which present the Contracting Parties and other stakeholders with a range of opportunities 'to manage tourism activities in an ecological, economic and socially sustainable manner'.[326] A manual on the guidelines is in preparation.[327]

The **2010 Biodiversity Target** has also been presented as a cross-cutting issue. It has been briefly discussed in paragraph (i) of this sub-section as one of the objectives of the convention and will be discussed in more detail later in this paragraph under 'Timing' as well as in sub-sections 2.5 (implementation) and 2.7 (monitoring). The focal areas, goals and targets that have been developed for the 2010 Biodiversity Target are laid down in Box III.

Box III: The CBD's 2010 Biodiversity Target: Focal Areas, Goals and Targets

1. Focal Area: Protect the components of biodiversity

Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes

Target 1.1: At least 10% of each of the world's ecological regions effectively conserved.
Target 1.2: Areas of particular importance to biodiversity protected.

Goal 2. Promote the conservation of species diversity

Target 2.1: Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups.
Target 2.2: Status of threatened species improved.

Goal 3. Promote the conservation of genetic diversity

Target 3.1: Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained.

2. Focal Area: Promote sustainable use

Goal 4. Promote sustainable use and consumption

Target 4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity.
Target 4.2: Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced.
Target 4.3: No species of wild flora or fauna endangered by international trade.

3. Focal Area: Address threats to biodiversity

Goal 5. Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced

Target 5.1: Rate of loss and degradation of natural habitats decreased.

Goal 6. Control threats from invasive alien species

Target 6.1: Pathways for major potential alien invasive species controlled.
Target 6.2: Management plans in place for major alien species that threaten ecosystems, habitats or species.

Goal 7. Address challenges to biodiversity from climate change, and pollution

Target 7.1: Maintain and enhance resilience of the components of biodiversity to adapt to climate change.
Target 7.2: Reduce pollution and its impacts on biodiversity.

4. Focal Area: Maintain goods and services from biodiversity to support human well-being

Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods

Target 8.1: Capacity of ecosystems to deliver goods and services maintained.
Target 8.2: Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained.

5. Focal Area: Protect traditional knowledge, innovations and practices

Goal 9. Maintain socio-cultural diversity of indigenous and local communities

Target 9.1: Protect traditional knowledge, innovations and practices.
Target 9.2: Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing.

6. Focal Area: Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources

Goal 10. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources

Target 10.1: All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements.
Target 10.2: Benefits arising from the commercial and other utilisation of genetic resources shared with the countries providing such resources.

7. Focal Area: Ensure provision of adequate resources

Goal 11. Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention

Target 11.1: New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20.
Target 11.2: Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4.

Thematic Programmes

The COP has initiated several thematic programmes on major ecosystem types.[328] The thematic programmes concern:

— agricultural biodiversity;
— dry and sub-humid lands biodiversity;
— forest biodiversity;
— inland water biodiversity;
— island biodiversity;
— marine and coastal biodiversity;
— mountain biodiversity.[329]

Agricultural biodiversity has been described by the COP as 'a broad term that includes all components of biological diversity of relevance to food and agriculture, and all components of biological diversity that constitute the agro-ecosystem'.[330] Its decline has rapidly increased in the 20th century.[331] The programme of work on agricultural biodiversity was adopted by the COP in 2000 and is based on four elements: (1) Assessments, (2) Adaptive management, (3) Capacity-building and (4) Mainstreaming.[332]

The objective of the assessments element is to provide a comprehensive analysis of status and trends of the world's agricultural biological diversity and of the underlying causes of its decline, as well as of the local knowledge of its management. The expected output, as laid down in the programme, is a set of standard questions and a menu of potential indicators of agricultural biodiversity and an agreed terminology of production environments by 2002, as well as reports on the state of the world's genetic resources, with an emphasis on the goods and services they provide, by 2010.[333]

The objective of the adaptive management element is to identify management practices, technologies and policies that promote the positive and mitigate the negative impacts of agriculture on biodiversity. A commitment was made to have thirty case-studies published by 2005.[334]

The capacity-building element is focused on building capacity, increasing awareness and promoting responsible action. Its target is the creation by 2010 of at least 1,000 local level forums and regional networks as well as the involvement of farmers and local communities in the majority of national programmes.[335]

The mainstreaming element is concerned with the development of national plans or strategies for the conservation and sustainable use of agricultural biodiversity and the promotion of their mainstreaming and integration in sectoral and cross-sectoral plans and

programmes. A target was set to have over 100 countries participating in various assessments by 2005.[336]

There are four cross-cutting initiatives that are also part of the programme of work on agricultural biodiversity: (1) the International Initiative for the Conservation and Sustainable Use of Pollinators,[337] (2) the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity,[338] (3) the International Initiative on Biodiversity for Food and Nutrition,[339] and (4) the Genetic Use of Restriction Technologies.[340]

On this thematic programme close cooperation with the FAO takes place.

Dry and sub-humid lands include dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems.[341] It appears that these ecosystems, of which large areas can be found in Australia, China, Kazakhstan, Russia and the United States, suffer from habitat conversion, over-grazing and over-harvesting, invasive alien species, climate change, limited water availability and natural fire regimes.[342] The work programme for dry and sub-humid lands consists of an 'assessment part' and a 'targeted actions part'. The targeted actions include the establishment of additional protected areas, appropriate management of water resources and invasive alien species, responsible resource management and support for sustainable livelihoods.[343] No specific timetable in relation to its implementation is included. The Secretariat of the Convention to Combat Desertification as well as other stakeholders are cooperating with the bodies of the CBD on the implementation of this programme.[344]

The COP has recognised at an early stage that forests are important habitats for plants, animals and micro-organisms, holding the majority of the world's terrestrial species,[345] and that their decline in the past century has been immense and is still continuing.[346] At COP 6 in 2002, the expanded programme of work on **forest biological diversity** was adopted.[347] The programme consists of three elements: (1) Conservation, sustainable use and benefit sharing, (2) Institutional and socio-economic enabling environment and (3) Knowledge, assessment and monitoring. For each element goals, objectives and activities have been developed. Important issues include the application of the ecosystem approach to forest management, the determination of biodiversity indicators and the assessment of forest status and trends.[348] There are no timetables included in the programme.

Various other international organisations have an interest in forests such as the UN Forum on Forests, the FAO, the International Tropical Timber Organisation and the UNFCCC, and coordination with these organisations is seen as of major importance.[349] One commentator has stated that this liaison has compromised the CBD's role in forest management, which 'appears to remove from the CBD one of its original raisons d'etre'.[350] Under the UNFCCC, a new initiative, Reducing Emissions from Deforestation and Degradation (REDD), has been developed and could, if agreed upon, contribute positively to the reduction of CO_2 emissions and the protection of forest biodiversity. In short, REDD would involve payments to developing countries to protect their forests. At this stage, it is not certain if the REDD programme will be adopted.[351]

In 1998, the COP identified **inland water biodiversity** as a thematic area and adopted the first programme of work.[352] Inland waters include lakes, rivers, ponds, streams, groundwater, springs, cave waters, floodplains, bogs, marshes and swamps and it has been established that these ecosystems have declined dramatically due to land conversion, infrastructural developments (such as dams), introduced invasive alien species, water withdrawal, pollution and over-harvesting.[353]

A revised programme of work for inland water biodiversity was adopted in 2004 and its elements are similar to those of the programme of work on forest biodiversity: (1) Conservation, sustainable use and benefit sharing, (2) Institutional and socio-economic enabling environment and (3) Knowledge, assessment and monitoring.[354] Each element has goals and objectives attached to it. The programme covers issues such as the application of the ecosystem approach, the introduction of monitoring and assessment, including environmental impact assessment, the development of pollution prevention strategies, the use of appropriate technology, transboundary cooperation and the involvement of local and indigenous people.[355]

No clear timetables are included in the programme. To support the Contracting Parties with their monitoring systems, guidelines on rapid assessment of biodiversity of inland water ecosystems were developed by an expert group,[356] and adopted by the COP in 2004.[357]

It has been recognised that close cooperation with various organisations is essential. The bodies of the Ramsar Convention fulfil a special role in this respect because of the overlap between the two conventions in this area, and a special joint work plan has been put in place.[358]

In 2006, the COP adopted the programme of work on **island biodiversity**.[359] Island biodiversity is under severe threat and the objective of the programme is 'the significant reduction of the rate of island biodiversity loss by 2010 and beyond at global, regional and national levels'.[360] A definition of 'island' is not given, but it appears that the focus is on island states that are developing countries.[361] The programme is in accordance with the Barbados Programme of Action for the Sustainable Development of Small Island Developing States, which was adopted in 1994 at the United Nations Conference on the Sustainable Development of Small Islands.[362] Included in the programme of work on island biodiversity are 50 priority actions, 11 goals, seven focal areas as well as 21 targets.[363] It is indicated by the CBD COP that cooperation with the biodiversity-related conventions, the UNFCCC, the UNCCD, UNESCO, UNEP-WCMC, the FAO and various environmental NGOs is important.[364]

At the same COP meeting in 2006, the Global Island Partnership (GLISPA) was launched to advance the implementation of the programme of work. GLISPA is an informal network in which over 60 governments, (international) organisations and (environmental) NGOs participate.[365]

The work programme on **marine and coastal biodiversity** was adopted in 1998 and revised in 2004.[366] These ecosystems suffer from land-based pollution and euthrophication, overfishing, alterations of physical habitats, introduced invasive alien species and climate change.[367] The programme of work intends to address these problems and the overall goal is to achieve a significant reduction of the current rate of marine and coastal biodiversity loss by the year 2010.[368] It consists of five elements: (1) to promote and improve the implementation of integrated marine and coastal area management, (2) to ensure conservation and sustainable use of marine and coastal resources, (3) to establish and maintain marine and coastal protected areas, (4) to prevent or minimise the negative impacts of mariculture on marine and coastal biodiversity,[369] and (5) to prevent the introduction of invasive alien species in the marine and coastal environment and to eradicate those that have already been introduced.[370] A goal as well as operational objectives have been established for each element.[371] Cooperation with many partners, such

as UNEP, the FAO, the IOC/UNESCO and the International Maritime Organisation (IMO), takes place on this thematic programme.[372]

It has already been indicated in the revised work programme that in relation to activities in marine areas beyond national jurisdiction, the UN General Assembly has to identify 'the appropriate mechanisms for the future establishment and effective management of marine protected areas beyond national jurisdiction'.[373] In 2006, the UN General Assembly subsequently decided that the Convention on the Law of the Sea will be the legal framework within which all activities in the oceans and seas must be carried out.[374] As a consequence, it is now clear that the CBD's jurisdictional scope does 'not extend to the conservation and sustainable use of components of marine biodiversity beyond areas of national jurisdiction'.[375] The open oceans or high seas, lying beyond the 200 nautical mile limit of the Exclusive Economic Zones of coastal states, cover about half the earth's surface. The UN General Assembly has established an Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction,[376] but so far these remain unregulated. However, there appears to be broad agreement within the international community that this gap must be addressed.[377] Meanwhile, the working group has indicated that certain CBD provisions, such as those on environmental impact assessment and research and training, are still applicable to marine areas beyond national jurisdiction, since they could be carried out under the control of individual states.[378]

The final thematic programme concerns **mountain biodiversity**. Mountain biodiversity is under pressure because of climate change, land cover change, infrastructure development, seismic hazards, fire and armed conflict and is, as a consequence, rapidly changing.[379] A programme of work on mountain biodiversity was adopted at COP 7 in 2004.[380] Its purpose is to realise a significant reduction of mountain biodiversity loss by 2010 at global, regional and national levels.[381] Three elements are identified: (1) Direct actions for conservation, sustainable use and benefit sharing, (2) Means of implementation for conservation, sustainable use and benefit sharing, and (3) Supporting actions for conservation, sustainable use and benefit sharing.[382] For each element several goals were set.[383]

Strategic Plan

At COP 6 in 2002, a Strategic Plan for the CBD for the period 2002-2010 was adopted 'in order to guide its further implementation at the national, regional and global levels'.[384] In the Strategic Plan, it is stated that the loss of biodiversity is still accelerating and that the threats to biodiversity must be addressed.[385] As already indicated in paragraph (i) of this sub-section, the mission of the Strategic Plan is 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level', which target will be discussed in more detail under 'timing'. Four main goals have been identified in the Strategic Plan and for each goal several objectives have been set.[386] Interestingly, a long list of obstacles to the implementation of the convention is outlined in the Appendix to the Strategic Plan.[387]

The CBD Measures: Some Commentators' Views

The measures as laid down in the convention have been criticised by various commentators as being too vague.[388] At the same time, it has also been recognised that the convention

would otherwise not have materialised,[389] and that its measures, though less than specific, are still comprehensive.[390] Some authors, however, have stated that this comprehensiveness makes the CBD 'vulnerable to over-extension',[391] and another warns that it may 'create confusion, dispersion and lack of focus'.[392] The convention has also been under attack for not effectively dealing with forest management, leaving the initiative to other UN institutions.[393]

The development of national biodiversity strategies and action plans, as well as the *in-situ* and *ex-situ* conservation measures (Articles 8 and 9), have been mentioned as the CBD's most significant obligations.[394] It has been acknowledged that the measures reflect the differences between developing and developed countries.[395]

In the second Global Biodiversity Outlook, which was published by the CBD in 2006, it was confirmed that the policies so far developed by the COP were sufficient to meet the 2010 biodiversity target to significantly reduce the current rate of biodiversity loss at the global, regional and national level.[396]

Timing

Several time-related targets in relation to the various measures, cross-cutting issues and thematic work programmes have been set, of which the most important are included in the so-called 2010 Biodiversity Target. This target is sub-divided in 11 goals and 21 sub-targets to assess progress at the global level.[397] Global indicators have been developed as well.[398] The most specific sub-targets that have been set appear to be (1) at least 10% of each of the world's ecological regions must be effectively conserved,[399] and (2) no species of wild flora or fauna should be endangered by international trade.[400] The other targets seem less specific.

Time-related targets have also been set in relation to protected areas, access to genetic resources and the strategy on plant conservation, and in the thematic work programmes for agricultural biodiversity, island biodiversity, marine and coastal biodiversity and mountain biodiversity. These cross-cutting issues and thematic work programmes have all been discussed earlier in this sub-section.

Box IV: The CBD's Strategic Plan 2002-2010: Goals and Objectives

Goal 1: The Convention is fulfilling its leadership role in international biodiversity issues.

1.1 The Convention is setting the global biodiversity agenda.
1.2 The Convention is promoting cooperation between all relevant international instruments and processes to enhance policy coherence.
1.3 Other international processes are actively supporting implementation of the Convention, in a manner consistent with their respective frameworks.
1.4 The Cartagena Protocol on Biosafety is widely implemented.
1.5 Biodiversity concerns are being integrated into relevant sectoral or cross-sectoral plans, programmes and policies at the regional and global levels.
1.6 Parties are collaborating at the regional and subregional levels to implement the Convention.

Goal 2: Parties have improved financial, human, scientific, technical, and technological capacity to implement the Convention.

2.1 All Parties have adequate capacity for implementation of priority actions in national biodiversity strategy and action plans.
2.2 Developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, have sufficient resources available to implement the three objectives of the Convention.
2.3 Developing country Parties, in particular the least developed and the small island developing States amongst them, and other Parties with economies in transition, have increased resources and technology transfer available to implement the Cartagena Protocol on Biosafety.
2.4 All Parties have adequate capacity to implement the Cartagena Protocol on Biosafety.
2.5 Technical and scientific cooperation is making a significant contribution to building capacity.

Goal 3: National biodiversity strategies and action plans and the integration of biodiversity concerns into relevant sectors serve as an effective framework for the implementation of the objectives of the Convention.

3.1 Every Party has effective national strategies, plans and programmes in place to provide a national framework for implementing the three objectives of the Convention and to set clear national priorities.
3.2 Every Party to the Cartagena Protocol on Biosafety has a regulatory framework in place and functioning to implement the Protocol.
3.3 Biodiversity concerns are being integrated into relevant national sectoral and cross-sectoral plans, programmes and policies.
3.4 The priorities in national biodiversity strategies and action plans are being actively implemented, as a means to achieve national implementation of the Convention, and as a significant contribution towards the global biodiversity agenda.

Goal 4: There is a better understanding of the importance of biodiversity and of the Convention, and this has led to broader engagement across society in implementation.

4.1 All Parties are implementing a communication, education, and public awareness strategy and promoting public participation in support of the Convention.
4.2 Every Party to the Cartagena Protocol on Biosafety is promoting and facilitating public awareness, education and participation in support of the Protocol.
4.3 Indigenous and local communities are effectively involved in implementation and in the processes of the Convention, at national, regional and international levels.
4.4 Key actors and stakeholders, including the private sector, are engaged in partnership to implement the Convention and are integrating biodiversity concerns into their relevant sectoral and cross-sectoral plans, programmes and policies.

iii. Conclusion

The objectives of the convention are reasonably clear although the lack of a definition of the term 'conservation' is regrettable. The added objective to achieve by 2010 a significant reduction of the current rate of biodiversity loss, is a welcome addition that has given the convention a clear purpose and its targets and indicators should make monitoring of progress more transparent.

Although the term 'as far as possible and as appropriate' is used frequently, the measures laid down in the convention are comprehensive, covering most issues that are relevant in relation to its objectives. The fact that the convention intends to address the often divergent interests of the developing and developed countries by introducing provisions on access and benefit sharing, transfer of technology and new and additional financial resources for developing countries is a positive development.

Important subjects that are not directly dealt with in the convention, such as climate change, have been added to the agenda by the COP in the form of cross-cutting issues. Thematic programmes were developed to target specific types of ecosystems. However, the resulting proliferation of measures and programmes obfuscates the clarity of policy and could conceivably hand the Contracting Parties a pretext for sluggish implementation. Furthermore, it has become clear that the CBD's scope does not extend to the marine areas beyond national jurisdiction and as a result its provisions do not fully cover the high seas, about half the earth's surface area. In relation to forest biodiversity it could be argued that the CBD has passed the initiative to other organisations, such as the United Nations Forum on Forests and the FAO as well as the UNFCCC. Nevertheless, it is clear that by and large the cross-cutting issues, thematic programmes and strategic plan contribute to the further development of the convention and its implementation by the Contracting Parties.

The inclusion of time-related targets in many (but not all) of the work programmes is encouraging. This makes the convention more meaningful, not least because it gives the Secretariat, Contracting Parties and stakeholders a means to keep the pressure on.

Notwithstanding the limitations in the CBD's jurisdictional scope regarding forest and marine biodiversity, the overall package of its measures and programmes is detailed and comprehensive. The contribution of this element to the effectiveness of the convention is therefore considered to be **satisfactory**.

2.5 Element 5: Implementation

Benchmark: *For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.*

As discussed in the previous sub-section, the number of CBD measures is extensive. Many obligations have been further shaped by the COP and additional measures have been added. The focus of this sub-section is on the status of implementation of the core measures by the Contracting Parties. It has been laid down in Article 26 of the convention that Contracting Parties have to submit to the COP 'reports on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this Convention'. These national reports should be presented at regular intervals to be decided by the COP.[401] Article 23, paragraph 4 of the convention requires that the COP 'shall keep under review the implementation of this Convention'. The Secretariat has no formal supervisory role, but it does prepare the so-called synthesis reports which are based on the national reports prepared by the Contracting Parties. For this sub-section the synthesis of information contained in the third national reports is used,[402] which is embodied in several reports published in 2007.[403] Although 146

Contracting Parties did submit their third national report to the Secretariat, only 127 were received in time to be included in the synthesis reports.[404]

Also taken into account are the periodic reviews of the cross-cutting issues and the thematic work programmes carried out by the Secretariat for the COP and the SBSTTA, as well as the Global Biodiversity Outlook (GBO), which has been published twice and contains relevant information in relation to implementation[405] and the documents on various CBD measures produced by the Working Group on the Review of Implementation, which was established in 2004.[406]

The COP has added more specific targets in relation to some obligations under the convention at a later stage that are usually linked to the 2010 Biodiversity Target. These will also be considered.

To determine whether the core measures of the convention as well as some additional measures decided on by the COP have been implemented by at least three-quarters of the Contracting Parties, the following items will be examined:

— National Biodiversity Strategies and Action Plans
— Protected Areas
— Invasive Alien Species
— Traditional Knowledge, Innovation and Practices
— National Legislation or Regulatory Provisions for the Protection of Threatened Species and Populations
— Sustainable Use
— Impact Assessment and Minimising Adverse Impacts
— Incentive Measures
— Biosafety
— Protocols
— Climate Change
— Ecosystem Approach
— Plant Conservation
— Thematic Work Programmes
— Strategic Plan
— 2010 Biodiversity Target

The implementation of measures relating to identification, monitoring, indicators, assessment and taxonomy will be discussed in sub-section 2.7, public education and awareness in sub-section 2.8, financial support, research and training, access and benefit sharing, transfer of technology and cooperation in sub-section 2.9 and reporting in sub-section 2.10.

At the end of this sub-section the supervision of the implementation of the convention by the Secretariat will be reviewed.

Development of National Biodiversity Strategies and Action Plans

The COP has stressed that the development and implementation of national biodiversity strategies and action plans by the Contracting Parties as required by Article 6 (a) of the convention 'constitute the cornerstone of national implementation of the Convention'.[407] Guidance for the development of these strategies and action plans was adopted by the COP

on several occasions. In 2004, the COP invited Contracting Parties to include measurable goals and targets.[408]

Meanwhile, the vast majority of the Contracting Parties has developed a national biodiversity strategy as well as an action plan. One of the objectives in the Strategic Plan is that 'every Party has effective national strategies, plans and programmes in place to provide a national framework for implementing the three objectives of the Convention and to set clear priorities'.[409] By May 2009, 166 Contracting Parties had developed their strategy (87%), of which 159 had also drawn up an action plan (83%). Twenty-five Contracting Parties still have to prepare both. Of the 166 Contracting Parties that have developed a national biodiversity strategy, 82 (50%) only completed it after 2000. Some Contracting Parties, such as France and Germany, only recently completed their strategies. France did so in 2004 (but still has no action plan) and Germany in 2007. The 25 Contracting Parties that have not yet concluded their strategies include developed countries such as Greece, Iceland, Israel, Italy, Liechtenstein, Luxembourg, Monaco and the United Arab Emirates.[410] About 140 Contracting Parties received financial assistance from the GEF for the development of their biodiversity strategies.[411]

It appears that 23 Contracting Parties have recently revised their strategies and action plans and that 16 are in the process of making revisions.[412] Although the COP has requested the Contracting Parties to include measurable goals and targets in their strategies and action plans, only a few have done so.[413] A recent analysis of the strategies and action plans carried out by the Executive Secretary showed up some other shortcomings as well. In most cases the ecosystem approach has not been integrated, provisions for funding are lacking and communication programmes are not included.[414] In relation to the action plans, it has been stated that 'many plans are little more than unprioritised lists of projects for international funding, aimed more at international donors than a national audience'.[415] Still, in its latest review, the Secretariat considers the overall progress towards the implementation of this Strategic Plan objective to be 'satisfactory'.[416] The status of the actual implementation of the national biodiversity strategies and action plans appears to be less encouraging and will be discussed later in this sub-section.[417]

Protected Areas

The obligation to establish a system of protected areas and the provisions related to this requirement are seen as central to the CBD by the Contracting Parties.[418] In the programme of work on protected areas that was adopted in 2004, the two main targets concern the establishment of a global network of comprehensive, representative and effectively managed national and regional protected area systems for (1) terrestrial areas in 2010, and (2) marine areas in 2012.[419] In relation to the 2010 Biodiversity Target, two targets that are relevant to protected areas were adopted: (1) at least 10% of each of the world's ecological regions is effectively conserved and (2) areas of particular importance to biodiversity are protected.[420]

It is indicated on the CBD website that almost all Contracting Parties have developed a system of protected areas.[421] Based on 2004 statistics, it appears that there are 104,791 protected areas listed in the world database on protected areas,[422] which cover a total area of 20 million km^2,[423] which is about 12% of the earth's land surface.[424]

However, there are still major shortcomings. It appears that five of the 14 terrestrial biomes,[425] have not met the 10% criterion. For instance the conservation of lake systems

and temperate grassland as well as of temperate broadleaf and needleleaf forests are below 10%.[426] The conservation of marine areas seems even further off target: less than 0,5% (less than 2 million km²) of the marine environment is protected,[427] and just 1,4% of the coastal shelf areas.[428]

Also problematic is the fact that many of the protected areas are areas that are economically less valuable, not necessarily areas harbouring habitats that cover key biodiversity features.[429] One analysis revealed that at least 300 critically endangered species, 237 endangered species and 267 vulnerable species are not protected in any of their ranges.[430] To address this issue, one of the actions included in the programme of work on protected areas is the completion of system gap analysis at the national and regional levels by 2006.[431] It appears from the 2007 synthesis report that less than 15% of the Contracting Parties have carried out this gap analysis.[432]

The effective management of the protected areas is another concern.[433] It is stated that although in the majority of protected areas species, habitats and landscapes are conserved effectively,[434] a large number of protected areas are not properly supported, mainly due to a lack of financial and technical resources, scientific data and public support.[435]

The IUCN has recently carried out a review regarding the financing of protected areas.[436] It appears from this study that in the period 1995-2005 the funding for protected areas has increased from just over USD 3 billion per year worldwide to USD 6.5 billion, most of which (about USD 5.5 billion) was spent in the developed world.[437] During this period, the total area under protection has increased by about 50%. The expenditure in real terms per hectare of protected areas has hardly changed.[438] Various studies have been carried out to estimate the required funding to effectively manage the existing protected areas in the developing countries, as well as the funding needed to expand the protected area network. One study estimates an annual requirement of USD 3 to USD 4 billion for the existing network and an additional USD 9 billion per annum for further expansion over the next ten years.[439] Another study indicates that up to USD 45 billion annually for over 30 years would be necessary for the expanded network of protected areas.[440] One of the conclusions in the IUCN review is that 'the current spending on PAs is grossly inadequate',[441] especially, but not exclusively, in the developing countries.[442]

In 2006, an assessment was made of the implementation of the programme of work on protected areas based on the information submitted by the Contracting Parties in their thematic reports on protected areas. However, the Secretariat received just 34 thematic reports (due in May 2003),[443] which was a reason for the COP to state that the 'limited availability of relevant information on activities of the programme of work, including the insufficient number of reports submitted' resulted in a 'major shortcoming in the current review'.[444]

During the last two CBD COP meetings,[445] the COP recognised that the financial resources to implement the programme of work on protected areas are insufficient and urged donor countries to strengthen their financial support.[446] It also called on Contracting Parties to increase the protection and management of marine and inland water ecosystems,[447] and stressed that, in cooperation with the UN General Assembly, marine protected areas beyond the limits of national jurisdiction should be established.[448] Finally, it requested Contracting Parties to finalise their ecological gap analysis not later than 2009.[449]

Invasive Alien Species

In 2008, an in-depth review of the ongoing work on alien species that threaten ecosystems, habitats and species was carried out by the Executive Secretary in consultation with the Global Invasive Species Programme (GISP) and other relevant organisations.[450] The review reveals that although 81% of the Contracting Parties have some protective measures in place to prevent the introduction of invasive alien species and to control or eradicate them, less than 15% have comprehensive measures in place.[451] It further appears that 15% of the Contracting Parties have identified their needs and priorities for the implementation of the Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats or Species, which were adopted by the COP in 2002.[452] Some Contracting Parties (11%) have assessed the risks for most alien species, but the majority (72%) have only assessed the risks for a few.[453] Regional cooperation on this issue is reported by half the Contracting Parties.[454] Finally, 61% of the Contracting Parties admit that they consider invasive alien species as a low or medium priority issue.[455]

The main conclusion of the review is that 'the implementation of prevention, control and mitigation measures is limited'.[456] In a position paper on the subject, the IUCN has stated that 'Parties' input to the in-depth review on invasive alien species [ ] has been less than comprehensive'.[457]

A recent study on the subject concludes that even the countries that have adopted legislation on invasive alien species often lack adequate strategies and management plans, while the implementation of these plans, if available, is ineffective.[458] It further indicates that the level of investment is insufficient.[459]

Traditional Knowledge, Innovation and Practices

The implementation of the programme of work on this subject has been assessed in the 2007 synthesis report prepared by the Executive Secretary.[460] It appears that 62% of the Contracting Parties have undertaken some or comprehensive measures to enhance and strengthen the capacity of indigenous and local communities to be involved in decision-making related to the use of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biodiversity,[461] and that a similar percentage have developed mechanisms, guidelines or legislation to foster and promote their active participation in decision making, policy planning and development.[462] Only few Contracting Parties used the Akwé: Kon guidelines.[463] The overall conclusion is that 'the implementation of Article 8(j) and related provisions requires more efforts and support'.[464]

Goal 9 of the 2010 Biodiversity Target is to 'maintain socio-cultural diversity of indigenous and local communities'.[465] The implementation of the two targets related to this goal has also been evaluated in 2007. It appears that in relation to the first target, to 'protect traditional knowledge, innovations and practices', many Contracting Parties have no policy frameworks or mechanisms in place and that only a small number have established specific targets or indicators.[466] The second target is to 'protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing'. With regard to its implementation it is found that a considerable number of Contracting Parties have acknowledged that the protection of these rights is low and that they do not have an adequate policy or legal framework in place.[467]

Various commentators have underlined the importance of the involvement of indigenous and local communities in the implementation of conservation policies.[468]

National Legislation or Regulatory Provisions for the Protection of Threatened Species and Populations

Article 8 (k) of the convention requires Contracting Parties to develop national legislation or regulatory provisions to protect their threatened species and populations. The 2007 synthesis report indicates that the vast majority of the Contracting Parties has confirmed the implementation of such legislation or provisions.[469]

The second goal of the 2010 Biodiversity Target, to 'promote the conservation of species diversity' requires Contracting Parties to set national targets regarding the improvement of the status of threatened species as well as populations of selected taxonomic groups.[470] It seems that the vast majority of Contracting Parties (over 80%) have established these national targets. However, few have set quantitative targets.[471] In the overall assessment of progress towards the threatened species target, the Executive Secretary has indicated that it is unclear to what extent the national measures for the protection of these species and their habitats have been implemented.[472]

Sustainable Use

The requirement to use the components of biodiversity in a sustainable manner has been laid down in Article 10 of the CBD and was made a cross-cutting issue by the COP in 2000.[473] In 2004, the Addis Ababa Principles and Guidelines for Sustainable Use of Biodiversity were adopted.[474] The 2007 synthesis report indicates that although many Contracting Parties have taken some action to implement these measures, the number of them that have taken comprehensive action is much smaller.[475] Only 38 of the reporting Contracting Parties have integrated sustainable use of biological resources into most sectors of national decision-making, as required by Article 10 (a) of the convention.[476] In relation to the use of biological resources, very few Contracting Parties have taken comprehensive measures to avoid or minimise adverse impacts on biodiversity (Article 10 (b)),[477] although 73% report that comprehensive measures are in place to protect and encourage their customary use in accordance with traditional cultural practices (Article 10 (c)).[478] Few Contracting Parties have taken comprehensive measures to support local populations to implement remedial action in degraded areas where biodiversity has been reduced (Article 10 (d)),[479] and less than half reported to cooperate with the private sector in taking initiatives on this subject (Article 10 (e)).[480] The implementation of the Addis Ababa Principles and Guidelines seems to be at a very early stage.[481]

The promotion of sustainable use and consumption is one of the goals of the 2010 Biodiversity Target, and although most Contracting Parties (80%) have included this target in their national biodiversity strategies or other plans and strategies, very few have adopted quantitative targets.[482]

Impact Assessment and Minimising Adverse Impacts

Although most Contracting Parties (86%) appear to have implemented some form of impact assessment legislation and procedures,[483] the overall impression is that biodiversity is not adequately covered as is required by Article 14.[484] The Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment are only applied by about a quarter of the Contracting Parties (24%).[485] Most Contracting Parties report that they have bilateral, regional or multilateral agreements in place in relation to activities that are likely to significantly affect biodiversity outside their jurisdiction (Article 14, paragraph 1 (c)),[486] and about half have an emergency response system in place in relation to activities or events that could result in grave and imminent danger to biodiversity (Article 14, paragraph 1 (c)-(e)).[487]

Incentive Measures

A distinction is made by the COP between incentive measures that are either positive or negative,[488] and incentives that are perverse.[489] The first type of incentive measures should be introduced by the Contracting Parties to encourage the conservation and sustainable use of biodiversity.[490] The second type of incentives should be identified and subsequently removed or mitigated by the Contracting Parties.[491]

In relation to the introduction of incentive measures for the conservation and sustainable use of biodiversity, the synthesis report indicates that very few Contracting Parties (11) have a comprehensive programme in place to identify and adopt incentive measures.[492] A total of 68 Contracting Parties report that they have some programme in place.[493] The majority of incentive measures that have been introduced appear to be positive, often aimed at the agricultural sector.[494] Only some Contracting Parties report on the application of negative incentives.[495]

A very small number of Contracting Parties (7) report to have identified perverse incentives that they subsequently removed or mitigated, while 41 Contracting Parties have identified, but not removed or mitigated these perverse incentives completely.[496] The Executive Secretary concludes on this issue that 'considerable more work needs to be undertaken in order to implement Article 11'.[497]

Biosafety

Article 19, paragraph 3 of the convention requires the Contracting Parties to consider the need for a protocol on biosafety. After almost four years of negotiations, this protocol, known as the Cartagena Protocol on Biosafety, was adopted by the Contracting Parties in Montreal on January 29, 2000. The objective of the protocol is 'to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on trans-boundary movements'.[498] The protocol includes the so-called advanced informed agreement procedure, which must ensure that parties are provided with the necessary information to make informed decisions before the organisms are imported into their territory.[499] A compliance mechanism has also been adopted. The Cartagena Protocol entered into force on 11 September 2003. To date, 157

parties have ratified the protocol.[500] The Cartagena Protocol is a separate international agreement whose effectiveness will not be assessed in this study.

Protocols

Besides the Cartagena Protocol, which was already anticipated in the convention, no further protocols have been agreed upon so far. Negotiations are still pending to come to an international regime on access and benefit sharing, which could be finalised by the end of 2010.[501] It has been questioned by one commentator whether it was justified to give biosafety priority over other urgent issues.[502]

More recently, it has been suggested by Trouwborst that a protocol on the adaptation of biodiversity to climate change should be considered.[503]

Climate Change

In 2006, the Contracting Parties have committed themselves to integrate biodiversity considerations into all national policies and plans regarding the mitigation of or adaptation to climate change.[504] In the synthesis report it is stated that 47% of the Contracting Parties report to have developed national adaptation programmes or national or regional climate change policies.[505] However, in an addendum to the synthesis report, the Executive Secretary reveals that in fact very few Contracting Parties have developed these plans or policies.[506] One of the sub-targets of the 2010 Biodiversity Target is to 'maintain and enhance resilience of the components of biodiversity to adapt to climate change'.[507] The implementation of this target also appears to be at an early stage.[508]

Ecosystem Approach

The implementation of the ecosystem approach by the Contracting Parties has been the subject of an in-depth review by the Executive Secretary in 2007.[509] In this review, it is indicated that, based on 101 third national reports, 12% of the Contracting Parties report that they 'substantially apply' the principles and guidance for the ecosystem approach as laid down in Decision V/6.[510] Almost three-quarter (74%) report that some are applied.[511]

The review also states that although there are many success stories, the lack of indicators to measure the impact of the ecosystem approach makes it impossible to carry out a detailed quantitative assessment.[512] One conclusion is that there is 'an urgent need to develop effective mechanisms for doing so'.[513] In a response to the review, the COP has, however, indicated that it does not consider this to be a priority.[514]

Plant Conservation

In 2007, the first review was published of the implementation of the 16 targets for 2010 of the Global Strategy for Plant Conservation,[515] adopted in 2002.[516] Although there has been some progress in these first five years in relation to the implementation of some of the targets,[517] the review's overall conclusion is that in relation to most targets over half of the Contracting Parties have not yet set any national targets.[518] Less than 10% of the Contracting Parties have developed national strategies to implement the global strategy.[519]

Thematic Work Programmes

A separate synthesis report on the implementation of the Thematic Work Programmes, based on the information in the third national reports, has been prepared by the Executive Secretary and was published in 2007.[520] The implementation of all the programmes of work on the various ecosystem types was included in the assessment, with the exception of the one on island biodiversity, which was only adopted in 2006.[521] For some ecosystem types an in-depth review was carried out as well. The ecosystem types are shown in bold at the start of each item for convenience.

The programme of work on **agricultural biodiversity** was the subject of a separate in-depth review in 2007,[522] but is also included in the synthesis report.[523] It appears that since its adoption in 2000 some progress has been made on the implementation of all four elements of the programme of work: assessments, adaptive management, capacity-building and mainstreaming. Two-thirds of the Contracting Parties (67%) are undertaking assessments of various components of agricultural biodiversity,[524] but only a few have developed agri-environmental indicators.[525] A majority of the Contracting Parties (71%) have identified management practices, technologies and policies that promote the positive and mitigate the negative impacts of agriculture on biodiversity, but only 12 Contracting Parties have identified relevant comprehensive practices, technologies and policies.[526] Some progress was made in relation to capacity-building,[527] and 59% of the Contracting Parties report to have mainstreamed national plans or strategies for the conservation and sustainable use of agricultural biodiversity into relevant sectoral and cross-sectoral plans and programmes.[528]

The in-depth review states that 'information collected from national reports and other reports is insufficient to indicate clearly the extent of progress made to the achievement of the 2010 target',[529] and that 'it is necessary to identify or develop indicators and methods to objectively evaluate how the implementation of the programme of work on agricultural biodiversity contributes to the implementation of the Convention objectives and the Strategic Plan of the Convention'.[530] It is also made clear that agriculture is still a major driver of biodiversity loss.[531] No reference is made in both reports to the specific targets that were set in the programme of work.

Information on only two of the four cross-cutting initiatives has been included in the third national reports: the International Initiative for the Conservation and Sustainable Use of Pollinators and the Genetic Use of Restriction Technologies. Very limited information was received from the Contracting Parties regarding the former initiative,[532] while in relation to the latter, 28% of the Contracting Parties report that they have identified means to address the potential impact of these technologies.[533] The initiatives on the Conservation and Sustainable Use of Soil Biodiversity and on Biodiversity for Food and Nutrition were not discussed in the third national reports.[534]

The programme of work on **dry and sub-humid lands biodiversity** was adopted in 2000,[535] and the first assessment of its implementation was published in 2005.[536] Unfortunately, the information used for this review was largely outdated, since it came predominantly from the second national reports as only a few Contracting Parties had submitted their third national reports at that stage.[537] The synthesis report that was published in 2007 gives a more comprehensive overview.[538] It is indicated that 65% of the Contracting Parties responding in their third national reports have integrated dry and sub-humid lands biodiversity into their National Biodiversity Strategies and Actions Plans.[539] In

relation to the assessment part of the programme of work, 47% of the Contracting Parties report on assessments, analysis, dissemination of existing knowledge and best practices to fill knowledge gaps in relation to dryland biological diversity, but only a few have undertaken comprehensive activities.[540] The synthesis report further reveals that in relation to the implementation of the targeted action part of the programme of work, 59% of the Contracting Parties have taken 'some measures', of which just a few (6) report 'many measures'.[541]

In 2002, an Ad Hoc Technical Expert Group on Review of the Implementation of the Programme of Work on Forest Biological Diversity was established,[542] since when this group has met several times. The latest in-depth review of **forest biodiversity** was published in 2007.[543] Besides the 122 third national reports that were used for this review,[544] the CPF, the FAO and the UNFF Secretariat were consulted as well.[545]

In relation to the implementation of the three elements of the programme of work on forest biodiversity,[546] the review as well as the synthesis report present the following picture. Regarding the first programme element, 'conservation, sustainable use and benefit-sharing', almost 50% of the reporting Contracting Parties indicate that they are applying the ecosystem approach to manage forests,[547] and 90% state to have identified major threats to forest biodiversity, causing many to take action to reduce these.[548] Measures to protect, recover and restore forest biodiversity are reportedly taken by 94%,[549] while 88% promote the sustainable use of it,[550] and 57% indicate that they have implemented measures in relation to access and benefit sharing.[551]

Concerning the second programme element covering 'institutional and socio-economic enabling environment', 82% of the reporting Contracting Parties state that they have enhanced the institutional enabling environment for the conservation and sustainable use of forest biodiversity,[552] while 67% confirm that they are taking measures to address socio-economic failures and distortions resulting in the loss of forest biodiversity,[553] and 89% report activities to increase public education, participation and awareness.[554]

In relation to the final programme element concerning 'knowledge, assessment and monitoring', 74% of the reporting Contracting Parties indicate that they have undertaken some activities to characterise forest ecosystems and to develop a general classification of forests on various scales.[555] Measures to improve knowledge of and methods for assessment of the status and trends of forest biodiversity are said to have been implemented by 81%,[556] while 83% report that they are taking measures to improve their understanding of the role of forest biodiversity and ecosystem functioning.[557]

The Executive Secretary concludes that 'some obvious progress is observed in implementing several goals of the work programme',[558] but also that 'considerable work remains to be done to significantly reduce the loss of forest biodiversity'.[559] Referring to the in-depth review, the COP declares that it is 'alarmed by the loss of forest biodiversity' and that there is an 'urgent need to strengthen the implementation of the programme of work on forest biodiversity'.[560]

The implementation of the work programme on **inland water biodiversity** is also discussed in the synthesis report that is based on the information contained in the third national reports.[561] The most important findings are the following. It appears that the majority (97) of the reporting Contracting Parties have partially incorporated the objectives and activities laid down in the work programme into their national biodiversity strategies and/or action plans, while only a small number (20) have integrated these fully.[562]

It is further stated that 20 Contracting Parties have listed priority activities and developed outcome-oriented targets in relation to the programme of work.[563] Measures for synergy and implementation of the joint work plan with the Ramsar Convention are said to have been identified by 25 Contracting Parties,[564] of which nine report that comprehensive measures for joint implementation have been taken.[565]

Seven Contracting Parties have promoted and applied the guidelines on the rapid assessment of inland water ecosystems biodiversity,[566] and the same number report improvements to their monitoring systems.[567]

The Executive Secretary further states that in relation to inland water biodiversity, the ecosystem approach is hardly mentioned by the Contracting Parties,[568] and that socio-economic data and data on threats are weak.[569]

The questions on inland water biodiversity in the third national report do not fully address the three programme elements and their goals and objectives as laid down in the programme of work. An in-depth review has not been carried out yet.

The first work programme on **marine and coastal biodiversity** was adopted in 1998,[570] and updated in 2004.[571] In the synthesis report, it is stated that various important elements of the work programme have been included by many Contracting Parties in their national biodiversity strategies and action plans. Examples are: establishing protected areas (75%), improving the management of existing protected areas (74%), capacity building for the management of marine and coastal resources (71%), managing a reduction of sediment and nutrient loads (62%), protecting areas important for reproduction (71%), improving sewage and other waste treatment (66%), and controlling excessive fishing and destructive fishing practices (74%).[572]

The status of the implementation of the five elements of the work programme has also been assessed. In relation to the first element, the implementation of the integrated marine and coastal management, 28 Contracting Parties report to have institutional arrangements in place,[573] and 11 indicate to have arrangements in place for the ecosystem-based management of marine and coastal resources.[574] The implementation of the second element, to ensure conservation and sustainable use of marine and coastal resources, appears to be at an early stage. Some Contracting Parties (31%) report that they have identified the critical ecosystem components and have developed management plans, others (22%) state that the comprehensive assessment of the critical components of marine and coastal ecosystems is in progress, while 16% report that these management plans are in place.[575] In relation to the third element, the establishment of protected areas, management plans are reported to be put in place by many Contracting Parties for marine and coastal protected areas.[576] A network of marine and coastal protected areas is indicated to be under development by 49%.[577] Regarding the fourth element, involving the prevention or reduction of the negative effects of mariculture, 53% of the Contracting Parties report that they use environmental impact assessment to address this issue.[578] The prevention of the introduction of invasive alien species and the eradication of those that have been introduced, is the fifth element of the work programme. It appears from the synthesis report that although some Contracting Parties state to have taken some actions, none seem to have put in place a comprehensive policy to address this issue.[579]

An in-depth review of the implementation of the programme of work on marine and coastal biodiversity is in preparation and would be available in 2010.[580] As already discussed in the previous sub-section, the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction are not within the jurisdictional scope of the CBD.

The implementation of the thematic programme on **mountain biodiversity** has also been included in the synthesis report. The questions in the third national report on this thematic programme have been restricted to the key goals under each programme element.[581] In relation to the first element, which covers direct actions for conservation, sustainable use and benefit sharing regarding mountain biodiversity, 73% of the responding Contracting Parties report to have taken measures to prevent and mitigate the negative impacts of key threats, 79% have taken measures to protect, recover and restore it, 67% have taken measures to promote sustainable use of biological resources and maintain its genetic diversity and 35% have taken measures concerning benefit sharing.[582]

In relation to the second element, which deals with means of implementation, 53% of the responding Contracting Parties state that they have developed legal, policy and institutional frameworks for the conservation and sustainable use of mountain biodiversity and the implementation of the programme of work. However, it appears that only a few Contracting Parties have strategies, programmes or laws in place.[583] Involvement in regional and/or transboundary agreements is reported by 39%.[584]

Regarding the third element, which looks at supporting actions for the conservation, sustainable use and benefit sharing in relation to mountain biodiversity, 62% of the responding Contracting Parties report to have taken measures to identify, monitor and assess mountain biodiversity,[585] and 61% state to have acted to improve research, technical and scientific cooperation and capacity-building,[586] In the overall assessment of the implementation of the work programme of mountain biodiversity, the Executive Secretary points out that the work programme dates from 2004 and that implementation is therefore just starting.[587]

In relation to all thematic work programmes, it has to be noted that some of the ecosystems may occur in the territories of all Contracting Parties, but that others, such as marine and coastal and mountain areas, will not. As a consequence, the numbers and percentages laid down in the synthesis report (or in-depth reviews) regarding these ecosystems are underreporting the actual situation. The Executive Secretary has stated on this issue 'that almost all work programmes are covered by most countries (over 90% for forest and agricultural biodiversity, more than 75% for marine and coastal and inland waters biodiversity and close to 75% for mountain ecosystems and dry and sub-humid lands biodiversity'.[588] This would still confirm that in certain cases the percentages and numbers do not fairly represent the actual situation.

Strategic Plan

The implementation of the four goals of the Strategic Plan 2002-2010 was first reviewed in 2005.[589] It was concluded that progress had been made on the implementation of the first goal (the Convention is fulfilling its leadership role in international biodiversity issues), and that progress towards the fourth goal (there is a better understanding of the importance of biodiversity and of the Convention, and this has led to broader engagement across society in implementation) was mixed. The outcome in relation to the implementation of the second (parties have improved financial, human, scientific, technical, and technological capacity to implement the Convention) and third goal (national biodiversity strategies and action plans and the integration of biodiversity concerns into relevant sectors serve as an effective framework for the implementation of the objectives of the Convention) appeared

to be disappointing, leading to the decision to carry out an in-depth review of the implementation of these goals.[590]

The outcome of this review was published in 2007.[591] Of the six objectives on which progress was assessed, the results regarding two are deemed satisfactory but incomplete (objectives 2.5 and 3.1), progress on three appears to be unsatisfactory (objectives 2.1, 2.2 and 3.3) while one could not be reviewed due to a lack of data (objective 3.4).[592] The outcome of the review of these objectives will be or have been discussed elsewhere in this chapter with the exception of objectives 3.3, (biodiversity concerns are being integrated into relevant national sectoral and cross-sectoral plans, programmes and policies) and 3.4, (the priorities in national biodiversity strategies and action plans are being actively implemented, as a means to achieve national implementation of the Convention, and as a significant contribution towards the global biodiversity agenda). Both will be discussed below.

The outcome of the review in relation to the implementation of objective 3.3, which reflects Article 6, paragraph (b) of the convention and is generally referred to as 'mainstreaming', is unsatisfactory.[593] Although 90% of the responding Contracting Parties indicate that they have integrated biodiversity issues into some sectors, and 36% into all major sectors, such as forestry and tourism, only three Contracting Parties report that the integration covers all sectors.[594] The overall assessment is that mainstreaming biodiversity in national sectoral and cross-sectoral plans, programmes and policies has been limited.[595]

The status of the implementation of the national biodiversity strategies and action plans by the Contracting Parties appears to be unknown. Only a few Contracting Parties have provided relevant information on this objective.[596] As a consequence, the COP notes with concern 'the paucity of information in relation to the implementation of national biodiversity strategies and action plans'.[597]

2010 Biodiversity Target

The Focal Areas, Goals and Targets in relation to the 2010 Biodiversity Target have been laid down in Box III. Where relevant, the status of the implementation of the targets is discussed elsewhere in this chapter.

At this stage, it has been widely recognised that the target, to achieve by 2010 a significant reduction of the current rate of biodiversity loss, will not be achieved. This was recently confirmed by UNEP in a press release.[598] However, the 2010 Biodiversity Target has become a very important monitoring tool for which more specific global headline indicators have now been developed. This will be further discussed in sub-section 2.7.

Supervision by the Secretariat

The issues discussed in this sub-section have made it clear that the Secretariat plays an important albeit mainly passive role in relation to the supervision of implementation. Under the authority of the COP, the SBSTTA and the Working Group on the Review of Implementation, it has prepared and published various synthesis reports and in-depth reviews of cross-cutting issues and thematic work programmes. These assessments provide a reasonably good overview of the overall status of implementation per measure or programme. However, a large percentage of Contracting Parties did not submit their national or thematic reports, while the reliability of the information contained in the reports

that were received is not always beyond doubt. It seems that these shortcomings are not actively challenged by the Secretariat. This would be in line with the reported consensus amongst Contracting Parties that 'the Secretariat should not become an implementing agency'.[599]

Recently, the Secretariat organised an internal consultation on how to better respond to the needs of the Contracting Parties. In the report on the results of this consultation, it is acknowledged that 'the Secretariat and the Conference of the Parties need a more complete understanding of the Convention's state of implementation and the obstacles to implementation as a cornerstone to the enhanced implementation phase'.[600] It is subsequently stated that 'regional focal points should be established in the Secretariat to complement the issue-based capacity'.[601] Furthermore, CBD Liaison Teams could be established in different UN locations.[602] At present, it is unknown whether the COP will give effect to these proposals.

The supervisory role of the Secretariat will be discussed in sub-section 2.10 as well.

Conclusion

The overall conclusion regarding this element is that the implementation by the Contracting Parties of the core measures of the convention as well as the cross-cutting issues and thematic programmes is still at a preliminary stage.

So far, the accomplishments under the convention are rather meagre. One of the few is the development by the vast majority of Contracting Parties of a national biodiversity strategy and action plan. However, a considerable number of Contracting Parties that are developed countries have not yet prepared such a strategy or have only done so very recently. It is also regrettable that measurable goals and targets are still lacking in most strategies and action plans, and that information on the progress of their implementation is not available.

Another relatively successful measure is the establishment of protected areas, although large gaps still have to be filled, especially in relation to the marine environment. At the same time management and funding need significant strengthening.

The high percentage of Contracting Parties that reported to have introduced national legislation or regulatory provisions for the protection of threatened species and populations, as well as the adoption of the Cartagena Protocol on Biosafety, should also be seen in a positive light. Although the convention anticipates the adoption of additional protocols, the Cartagena Protocol is the only one that has been adopted so far.

Some initial steps have been taken regarding the implementation of measures dealing with sustainable use, impact assessment and climate change. This also goes for the implementation of the thematic programmes for certain ecosystems, especially the one on forest biodiversity.

The implementation of measures regarding invasive alien species, traditional knowledge, innovation and practices, incentives, ecosystem approach, plant conservation and mainstreaming are clearly not a priority for the Contracting Parties.

It should be taken into account that only 127 Contracting Parties did submit their third national reports in time to be included in the synthesis reports, which provide most of the information on implementation. It seems reasonable to assume that those that failed to do so are unlikely to be found in the vanguard when it comes to implementation. The overall results could therefore be even more disappointing than is reflected in this sub-section.

Another issue concerns the fact that the reliability of the information submitted by the Contracting Parties has not been verified.

The supervision by the Secretariat of the implementation of the convention appears to be rather passive. It has made proposals to improve this situation, but it is unclear at this stage whether these will be approved by the COP.

The contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.6 Element 6: Reservations, Derogations and Other Exceptions

Benchmark: *For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).*

i. Reservations

It has been laid down in the convention that Contracting Parties are not allowed to make any reservations.[603]

ii. Derogations

The convention does not include a derogation clause.

iii. Other Exceptions

This is not applicable in relation to the CBD.

iv. Conclusion

The contribution of this element to the effectiveness of the convention is thus considered to be **satisfactory**.

2.7 Element 7: Monitoring

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).*

Several provisions of the CBD deal with technical and scientific issues in general and monitoring in particular. Article 7 of the CBD is the most important provision in this respect. Contracting Parties are required to identify and monitor important components of biological diversity, having regard to the indicative list of categories set down in Annex I.[604] This list includes for instance ecosystems and habitats containing high diversity, large numbers of endemic or threatened species, or wilderness.[605] Furthermore, processes and categories of activities that are likely to have a significant adverse impact on the conservation and sustainable use of biodiversity should be identified and their effects

should be monitored.[606] Finally, all the data that emanate from these activities should be maintained and organised by a mechanism.[607]

The SBSTTA has as one of its main tasks to provide the COP with assessments of the status of biodiversity.[608] Besides information from the Contracting Parties, the SBSTTA also receives contributions from other stakeholders, such as the environmental NGOs, the scientific community and international organisations. Examples of important sources of information are the reports on the state of the world's plant and animal genetic resources for food and agriculture of the FAO and the IUCN Red List assessment.

This already indicates that a distinction should be made between the monitoring at the national level, and monitoring at the regional and global level, although the close link between both is obvious. In relation to the former category, the COP urged the Contracting Parties already in 1996 to identify indicators of biodiversity and to consider the implementation of Article 7 as a high priority.[609] The development of indicators is seen as essential since it is 'simply not feasible to monitor the whole of biological diversity'.[610] Indicators are defined by the SBSTTA as 'environmental attributes – often species or groups of species – that can be sampled and whose change either in space or in time is taken to reflect a change in biological diversity as a whole'.[611] It should be taken into account, however, that scientists estimate that only about 13% of species on earth have yet been discovered and described,[612] and that the conservation status of only 2,7% of the described species is currently known.[613]

Various initiatives have been taken to support the Contracting Parties to develop a core set of biodiversity state indicators. In 1997, a special liaison group on indicators made recommendations aimed at providing 'a fairly comprehensive framework to direct Parties in the development of a core set of biodiversity indicators within a fairly short period of time'.[614] In 2003, the Executive Secretary prepared a note that included 'guidelines and principles for designing national-level monitoring programmes and indicators for biodiversity'.[615] A special project Biodiversity Indicators for National Use (BINU) ran from 2002 to 2005 and was funded by the GEF and implemented by the WCMC and the Netherlands National Institute of Public Health and the Environment. Four developing countries participated in the project: Ecuador, Kenya, Philippines and Ukraine.[616] The results of the project were published in 2005.[617] One of the conclusions is that 'even from a very basic starting point and with limited resources, it is possible to make great strides in the development of biodiversity indicators in a relatively short space of time'.[618]

The latest status in relation to the development and use of biodiversity state indicators has been laid down in the synthesis report of 2007.[619] About half of the 127 reporting Contracting Parties state to have identified and to use some indicators for monitoring.[620] It is further stated that 13 Contracting Parties, which are mostly developed countries, have a 'relatively complete system of data or information collection and maintenance' in place,[621] which means that the monitoring of habitats and species even in the majority of developed countries is still insufficient. This is in line with the conclusions of a recent composite report prepared by the European Commission on the conservation status of habitat types and species within the EU.[622] In this report, it is indicated that about 13% of regional habitat assessments and 27% of regional species assessments are reported by the EU Member States as 'unknown'.[623] The lack of assessments appears to be especially critical in Southern European countries such as Cyprus, Greece, Spain and Portugal.[624] It is therefore not surprising that the overall conclusion of the Executive Secretary of the CBD on this topic is

that 'many countries need to do more with regard to identifying and using indicators for monitoring'.[625]

As discussed earlier in this chapter,[626] the 2010 Biodiversity Target to significantly reduce the current rate of biodiversity loss at the global, regional and national level was introduced in 2002.[627] Besides the focal areas, goals and targets set to clarify the 2010 target,[628] global indicators were agreed upon as well to be able to assess the progress towards the 2010 Biodiversity Target.[629] In Annex V of Decision VIII/15, a total of 22 headline indicators, which are indicators that focus on key issues, have been identified for the seven focal areas. Of the 22 headline indicators, 13 are considered ready for immediate testing.[630] One or more indicators are linked to each headline indicator.[631] Examples of headline indicators are 'trends in extent of selected biomes, ecosystems, and habitats', 'coverage of protected areas' and 'trends in abundance and distribution of selected species'. The indicators for the latter headline indicator are the Living Planet Index of the WWF and the Zoological Society of London, and the Global Wild Bird Index of BirdLife International and the RSPB, which demonstrates the importance of the global scale data sets that have already been developed by various organisations.

The process of establishing the indicators started in 2004 with the adoption of provisional indicators by the COP.[632] The SBSTTA and an ad hoc technical expert group then further developed these indicators with the input of representatives of organisations that were already active in this area, such as the IUCN and BirdLife International.[633] This led to the establishment of the 2010 Biodiversity Indicators Partnership (2010 BIP), which is a global initiative by UNEP-WCMC 'to further develop and promote indicators for the consistent monitoring and assessment of biodiversity'.[634] It is financially supported by the GEF. The three objectives of the 2010 BIP are: (1) to generate information on biodiversity trends that are useful to decision makers; (2) to ensure improved global biodiversity indicators are implemented and available; and (3) to establish links between biodiversity initiatives at the regional and at the national levels to enable capacity building and improve the delivery of the biodiversity indicators.[635]

There are over 40 partners that participate in the 2010 BIP, including UN agencies and some of their affiliates, biodiversity-related conventions, environmental NGOs and research institutions.[636] Eighteen of the partners are so-called Key Indicator Partners, all of whom are responsible for one or more indicators. The Associate Indicator Partners are 'to assist in the development and implementation of the CBD suite of biodiversity indicators relating to the 2010 target, and/or to provide technical support to the Partnership',[637] while the Affiliate Partners work on a regional or national level. A steering committee has been appointed, which advises on the general direction of the 2010 BIP. It comprises representatives of the following organisations and conventions: the CBD, the European Environment Agency, the FAO, the GEF, the IUCN, the Ramsar Convention, UNEP and UNEP-WCMC.[638]

A recent review carried out by a group of leading scientists has concluded that, although progress has been made, the development of the indicators is still insufficient and the set of indicators incomplete. The impact of climate change on biodiversity for instance has not been covered, nor have the goods and services gained from biodiversity and ecosystems. It is indicated that large gaps in our knowledge about biodiversity loss remain and that continued investment is required.[639] However, in relation to the indicators that have been developed, it is stated in Global Biodiversity Outlook 2 that 'while we still lack comprehensive global-scale measures to assess progress towards the 2010 target, it is possible to describe trends in the status of biodiversity using this framework'.[640]

Over the years, various other initiatives have been taken by the CBD COP and some international organisations to improve knowledge on biodiversity. One of the most remarkable initiatives has probably been the Millennium Ecosystem Assessment (MA), which was requested by the UN Secretary-General in 2000. Its development was coordinated by UNEP, while the CBD was closely involved. It started in 2001 with the objective to 'assess the consequences of ecosystem change for human well-being and the scientific basis for action needed to enhance the conservation and sustainable use of those systems and their contribution to human well-being'.[641] More than 1,360 natural and social scientists were involved, and the results became available in 2005. The main MA findings are that over the past 50 years human actions have depleted the world's ecosystems more rapidly and extensively than in any comparable time in human history, resulting in a substantial and largely irreversible loss of biodiversity, and that the degradation of ecosystems could further increase significantly during the first half of the 21st century. To reverse this trend, policies, institutions and practices will have to change. The MA has presented several scenarios to achieve this.[642] It also noted a major lack of knowledge and information about ecosystems, especially about the status and economic value of ecosystem services.[643] A special biodiversity edition was published separately.[644]

The results of the MA were discussed at the COP 8 meeting in 2006 and Contracting Parties were encouraged 'to conduct national and other sub-global assessments making use of the conceptual framework of the Millennium Ecosystem Assessment'.[645] However, it has been acknowledged that so far the MA has had limited impact on policy-making, especially in developing countries.[646] At COP 9, further discussions took place on an MA follow-up.[647] At this stage, the establishment of a new scientific body, IMoSEB, was already under discussion for several years by the international community, including the CBD. As indicated above,[648] it was envisaged to be an independent body mirroring the Intergovernmental Panel on Climate Change (IPCC) to reduce the gap between science and policy on biodiversity. At the end of 2008, it was decided to combine the MA follow-up with the IMoSEB initiative by creating an Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). UNEP indicated that the core mandate of IPBES would be 'the provisioning of authoritative, independent, credible, inclusive, and internationally peer reviewed policy relevant scientific advice on changes in biodiversity and ecosystem services and their implications for human well-being at multiple scales'.[649] The new body is supposed to add great value to the SBSTTA as well as to the scientific bodies of other biodiversity-related conventions by delivering scientifically credible information on relevant issues.[650] In October 2009, a second ad hoc intergovernmental and multi-stakeholder meeting on IPBES took place with representatives of 95 countries, 15 intergovernmental organisations and 15 NGOs.[651] At the end of this meeting it was concluded that the vast majority of countries are in favour of the establishment of IPBES and that a further and final meeting would take place in 2010.[652]

The Global Taxonomy Initiative (GTI) was initiated by the CBD COP in 1998,[653] and is one of the cross-cutting issues.[654] The purpose of the GTI is to address 'the lack of taxonomic information on the identity of components of biological diversity in many parts of the world' and 'the need to build capacity for taxonomic activity in all regions, but especially developing countries'.[655] A programme of work for the GTI was adopted in 2002. It sets five operational objectives, namely (1) assessing national, regional and global taxonomic needs and capacities, (2) building and maintaining human resources, systems and infrastructure needed to obtain, collate and curate the biological specimens that are the basis for

taxonomic knowledge, (3) facilitating an improved and effective infrastructure for access to taxonomic information and (4) including key taxonomic objectives in the thematic work programmes and (5) cross-cutting issues of the convention.[656] Many partners are involved in the implementation of the GTI of which probably the most important one is BioNET,[657] the Global Network for Taxonomy, which is an international initiative fully dedicated to promoting taxonomy, especially in the developing countries.[658] In 2004, an MOC was signed between this network and the Secretariat of the CBD in which it has been laid down that BioNET 'will act as a key agency for the implementation of the programme of work of the GTI'.[659]

An in-depth review of the implementation of the programme of work for the GTI was published in 2005,[660] and the status regarding implementation has also been included in the 2007 synthesis report prepared by the Executive Secretary.[661] It appears that the implementation of the programme of work for the GTI is still at an early stage.[662] The synthesis report indicates that 50% of the responding Contracting Parties has conducted a basic assessment of taxonomic needs and capacities and that 7% has completed thorough assessments.[663] Very few of the responding Contracting Parties report some regional or global capacity-building activities.[664] Lack of funding and infrastructure and shortage of trained personnel appear to be the main obstacles.[665]

In the past decade, several initiatives have been taken to create data networks that would provide universal online access to biodiversity data. One of the most prominent examples is the Global Biodiversity Information Facility (GBIF), which was established in 2001 by 17 countries. Meanwhile, the number of participating countries has increased and many international organisations support the GBIF as well.[666] The objective of the GBIF is 'to facilitate the development of a global biodiversity information infrastructure to enable free and open access to primary biodiversity data'.[667] The initial focus of the facility is on species- and specimen-level data. The CBD Secretariat has signed an MOC with the Secretariat of the GBIF in 2003. Similar initiatives are Species 2000, a global taxonomy organisation that is indexing the world's known species, and the Integrated Taxonomic Information System (ITIS). Both are now working in partnership to create the Catalogue of Life, the Biodiversity Heritage Library for which currently over 12 million pages of biodiversity-related literature per year are being scanned and processed, and the Encyclopaedia of Life, which is being constructed as a website listing all known species (about 1,8 million).[668]

These organisations and bodies as well as many others were often already working together, but recently they have agreed to formalise their cooperation to implement the so-called Global Species Information System (GSIS) to avoid duplication and facilitate implementation. The aim of the GSIS is 'gathering and making available information on all known species on earth' to serve 'as a tool for information and awareness raising for the wider public as well as for enhanced scientific cooperation'.[669] The concept of a GSIS has been recommended by the environment ministers of the G8 +5 in March 2007 in Potsdam (Germany).[670]

Another significant initiative supported by the Group of Eight (G8) as well as by the World Summit on Sustainable Development (WSSD) is the establishment of the Group on Earth Observations (GEO) in 2005. GEO is a voluntary partnership of governments and international organisations.[671] Its objective is to build a Global Earth Observation System of Systems (GEOSS), linking together monitoring networks, instruments, data bases, and models and other decision-support tools. A 10-Year Implementation Plan has been prepared and nine 'Societal Benefit Areas' have been defined, of which biodiversity is

one.[672] This biodiversity arm of GEOSS is called the GEO Biodiversity Observation Network (GEO BON) and was established in 2008. The CBD and other biodiversity-related conventions are participating in GEO BON.[673] During GEO BON's planning phase, DIVERSITAS, NASA and the U.S. Geological Survey have assumed a coordinating role jointly with the GEO secretariat.[674] Other participating bodies and organisations are UNEP-WCMC, the GBIF, other space agencies, UN organisations, environmental NGOs, academic and research institutions, national governments and agencies and the private sector.[675] A steering committee will be established to oversee the activities.[676] In the short term, GEO BON will focus on setting up a global network of biodiversity observation systems.[677] In 2008, the CBD COP underlined its support for GEO BON and invited the Contracting Parties and other relevant stakeholders to do the same. The Executive Secretary has been requested to collaborate with GEO BON.[678] In relation to the GEO BON initiative, some commentators have remarked that 'there are challenges ahead, including overcoming a tradition of data restriction within the biodiversity field'.[679]

The COP decided at its second meeting that a periodic report on biodiversity should be prepared under the title Global Biodiversity Outlook (GBO).[680] This document discusses the status of biodiversity at a global and regional level and analyses the level of implementation of the COP decisions and SBSTTA recommendations as well as other relevant issues.[681] The first GBO, GBO1, was published in 2001, the second, GBO2, in 2006. The launch of the third edition of the GBO is scheduled for 2010. As of 1997, UNEP has published the Global Environmental Outlook (GEO), which is a global environmental assessment of the state of the environment (including biodiversity) that also includes trends and future outlooks. The fourth edition was published in 2007.[682]

Conclusion

The activities discussed in this sub-section that can be directly contributed to the CBD are the monitoring required by the Contracting Parties at the national level, the implementation of the Global Taxonomy Initiative and the development of global indicators for the 2010 Biodiversity Target. The first two require direct action by the Contracting Parties themselves and progress appears to be slow. Despite support from the SBSTTA and the Secretariat, the monitoring of species and habitats by the vast majority of the Contracting Parties is insufficient and the implementation of the GTI has only just started. The development of global indicators for the 2010 Biodiversity Target for the monitoring of trends in the status of the world's biodiversity is also at an early stage. The establishment of the 2010 BIP, with the CBD Secretariat as a member of the steering committee, and a large number of major partners, could be seen as a positive development.

It appears that as of 2000, significant efforts have been made by various global bodies, including the G8, to address many of the deficiencies that still exist in our knowledge and monitoring of biodiversity. The MA project is an important example of the many assessments that are taking place to fill these gaps. Modern, technology-based initiatives, such as the GBIF, the GSIS and the GEO BON, are also important new developments. The bodies of the CBD are usually involved in these projects and assessments.

The publication of the Global Biodiversity Outlook on a regular basis is of great importance to keep all stakeholders, including the general public, well informed of the status of biodiversity and the developments that are taking place under the CBD.

It is generally accepted that the creation of IPBES, the scientific body that would be giving policy relevant scientific advice on changes in biodiversity and ecosystem services, would be a major achievement by the international community. The initiative has been under discussion for some years now, but since an ad hoc intergovernmental and multi-stakeholder meeting on the subject in October 2009, it seems highly probable that IPBES will be established in 2010.

It has become clear that the monitoring of biodiversity on a global, regional and national level is still 'work in progress' and that, in spite of advancements in the past decade, it is not even close to an adequate level.

The contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.8 Element 8: Communication, Education and Public Awareness

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and should provide access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.*

The requirement that the Contracting Parties should promote and encourage the importance of biodiversity, propagate it through the media and include it in educational programmes has been laid down in the convention.[683] Cooperation with other states and international organisations to develop educational and public awareness programmes with respect to conservation and sustainable use of biodiversity should also take place.[684] Furthermore, Contracting Parties must establish and maintain programmes for scientific and technical education and training in relation to biodiversity and provide support for such education and training in developing countries.[685]

The COP addressed the issue of public awareness and education for the first time at its fourth meeting in 1998, stating that public education and awareness are central instruments to achieve the convention's goals.[686] At its fifth meeting in 2000, the COP adopted a range of measures to promote education and public awareness, such as the establishment of the Global Initiative on biodiversity education and public awareness in cooperation with UNESCO and the initiation of an information and public awareness sub-programme by the Secretariat.[687]

The Global Initiative on Communication, Education and Public Awareness (CEPA) was prepared by a consultative working group in which organisations such as the IUCN, which has a special Commission on Education and Communication (CEC), and the WWF participated. The COP adopted the Global Initiative at its 2002 meeting.[688] The programme of work for the Global Initiative recognises that 'the concept of biodiversity poses particular communication and education challenges due to its comprehensiveness, complexity and ill-defined nature'.[689] Three programme elements have been identified in the Global Initiative:

— Towards a global communication, education and public awareness network;
— Exchange of knowledge and expertise;
— Capacity-building for communication, education and public awareness.[690]

For each programme element, the operational objectives and proposed actions as well as the available budget have been defined. The Secretariat, usually together with the IUCN and other international organisations, is designated as 'lead organisation' for the various actions, while the Contracting Parties are mere 'partners'. The proposed actions include the development of an electronic portal and an alternative information dissemination mechanism, the creation of a registry of education and communications experts, the collection of information, documents and other materials on CEPA, the development and delivery of training programmes and the establishment of partnerships with journalists and broadcasters engaged in communicating biodiversity-related issues through the mass media.[691]

One of the four goals of the Strategic Plan 2002-2010 is that 'there is a better understanding of the importance of biodiversity and of the Convention, and [that] this has led to a broader engagement across society in implementation'.[692] Contracting Parties are supposed to implement a communication, education and public awareness strategy and to promote public participation in support of the convention.[693]

In preparation for the COP 8 meeting in 2006, the Executive Secretary indicated that the funding to implement the Global Initiative on CEPA had been insufficient, [694] and that the achievements by the Secretariat so far were (therefore) modest.[695] A proposal was launched to identify a short-list of priority activities given the limited funding,[696] and to adopt an implementation plan for the longer term at the same time.[697] Both proposals were subsequently adopted by the COP.[698] Ten priority activities were determined, including the establishment of an implementation structure or process for CEPA activities, the determination of the level of knowledge and awareness on biodiversity, the implementation of a media relations strategy and the strengthening of formal and informal education on biodiversity.[699] For each of these activities, tasks for the Executive Secretary as well as for the Contracting Parties were identified.

The implementation plan for the programme of work on CEPA includes various targets for the Contracting Parties as well as for the Secretariat that should be realised by 2010.[700] At that stage, the Contracting Parties should, among other things, (1) have initiated the creation and integration of developed biodiversity-related curricula, (2) have fully operational CEPA strategies and action plans in place, and (3) have created a better understanding of the importance of biodiversity and the convention (goal 4 of the Strategic Plan).[701] The Secretariat's targets include the facilitation of the coordination of joint activities at the international level and the promotion of the development of educational programmes, activities and curricula as well as the creation of a communication and public awareness infrastructure.[702]

At the COP 9 meeting in 2008, the COP requested the Contracting Parties as well as other stakeholders 'to double their efforts to implement the programme of work for the Global Initiative on Communication, Education and Public Awareness'.[703]

The 2007 synthesis report on the implementation of the provisions of the convention, which is based on the third national reports, presents the results regarding the implementation of the CEPA requirements (based on the programme of work as laid down in Decision VI/19).[704] It appears that over half of the reporting Contracting Parties have developed a CEPA strategy, but that only 14% have promoted public participation in support of the convention.[705] It is further stated that almost all reporting Contracting Parties are promoting communication, education and public awareness of biodiversity at the local level,[706] and that government support for NGOs, press and media organisations has

increased.[707] However, cross-sectoral implementation has hardly taken place.[708] Private sector involvement in CEPA activities also seems negligible.[709]

In the same year, the in-depth review of goals 2 and 3 of the Strategic Plan was published and although the CEPA activities are mainly covered by the fourth goal of the Strategic Plan, some interesting facts in relation to this subject were revealed. For instance, effective communication programmes are missing in many national biodiversity strategies and/or action plans and only few Contracting Parties have established effective strategies to promote public awareness of biodiversity and the CBD.[710] On the other hand, many Contracting Parties report to have education programmes in place.[711] Moreover, the website of the CBD indicates that many Contracting Parties have developed national websites on biodiversity.[712]

Over the years, the Secretariat has developed a long list of communication tools of which the CBD-website is probably the most important.[713] The website offers comprehensive information on the CBD, ranging from general information leaflets to in-depth studies. All essential documents seem to be available. To further enhance public awareness, the Secretariat has produced a number of publications, such as the Handbook of the Convention on Biological Diversity, a brochure on the Cartagena Protocol, various reports, newsletters and press releases, which are all available on the website. The same goes for the technical series, which gives up-to-date information on subjects such as forest biodiversity, climate change, protected areas, access and benefit sharing and the global taxonomy initiative. The Global Biodiversity Outlook can also be downloaded from the website. All documents are made available in English, but some can also be obtained in other languages.[714]

A special CEPA toolkit, including fact sheets, checklists and examples, has been developed for the Contracting Parties,[715] and a Clearing House Mechanism has been set up for exchanging and integrating information on biodiversity.[716]

Examples of other CEPA activities initiated by the bodies of the convention are the International Day of Biodiversity, the Green Wave for Biodiversity and the 2010 International Year of Biodiversity. The annual International Day of Biodiversity on the 22nd of May should help to increase awareness and understanding of biodiversity issues. The Contracting Parties are supposed to organise various activities to celebrate that day. Each year, a different theme is chosen, such as Biodiversity and Development for 2010. Related to this annual event is the so-called Green Wave for Biodiversity. This campaign focuses specifically on children and youth. On the 22nd of May children in participating schools around the world plant trees at 10.00 am local time, thereby creating a 'green wave' across time zones. The Green Wave is one of several global initiatives on biodiversity education, which is seen as a priority by the COP.[717] In connection with the 2010 Biodiversity Target, the year 2010 has been declared the International Year of Biodiversity by the UN General Assembly. An implementation strategy has been prepared by the CBD Secretariat, which includes a list of ideas and events.[718]

In relation to the CEPA activities under the convention, it is stated in GBO2 that 'current communication, education and public awareness programmes by Parties are not sufficient to address the widespread lack of awareness and understanding of biodiversity and the importance of the Convention'.[719] In spite of the CEPA initiatives taken by the Contracting Parties, the Secretariat and several stakeholders, various surveys have shown that the general public is not familiar with the term 'biodiversity'. The most recent survey was undertaken by the European Commission in 2010 and reveals that only 38% of EU citizens

know what biodiversity means.[720] The CBD staff has recently acknowledged that biodiversity as well as the CBD are not well known to the public.[721] A statement by the COP that the convention has raised public awareness of biodiversity is not founded on any survey results.[722] Reservations about the COP's statement are also reflected in one commentator's observation that the Secretariat's interaction with the public is limited and that it has not been very successful in attracting the attention of the media.[723] It has been pointed out by several commentators that the complexity of biodiversity as well as the comprehensive nature of the CBD make it difficult for the average person to grasp.[724]

Conclusion

A serious start has been made to raise public awareness of the importance of biodiversity, to increase the level of biodiversity education and to promote the convention. The Global Initiative on CEPA and the national CEPA strategies that have been prepared by some Contracting Parties are steps in the right direction. So far, the Secretariat has taken several actions to enhance public awareness, of which the extensive website and the long list of publications are good examples. The fact that many Contracting Parties do offer information on biodiversity and the CBD through special national websites, leaflets and education programmes is also a positive development. Nevertheless, it is clear that these activities are just the beginning and that the majority of Contracting Parties have yet to take real measures in relation to the preparation and/or implementation of their national CEPA strategies. The celebration of the International Year of Biodiversity in 2010 could, if properly planned and executed, be an important step to achieve a much better understanding by the general public of the issues at stake.

At this stage the contribution of this element to the effectiveness of the convention is therefore considered to be **unsatisfactory**.

2.9 Element 9: Incentives

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.*

In the preamble of the CBD it is stated that 'special provision is required to meet the needs of developing countries, including new and additional financial resources and appropriate access to relevant technologies'.[725] In practice, seven incentives can be identified that could potentially be of interest to the Contracting Parties, especially to those that are developing countries: the financial resources incentive, the access and benefit sharing incentive, the access to and transfer of technology incentive, the research and training incentive, the technical and scientific cooperation incentive, the information incentive and the cooperation incentive. Each incentive will be discussed in more detail below.

i. The Financial Resources Incentive

Articles 20 and 21 of the convention are the principle provisions in relation to the financial resources required for the implementation of the CBD, dealing in particular with the funding needs of developing countries.[726] It has been laid down in Article 20 that 'new and additional

financial resources' are required to enable the developing countries to implement the measures of the convention, which should be provided by the developed countries.[727] A number of Contracting Parties have been identified as developed countries during the first meeting of the COP in 1994.[728] In 2006, the number of donor countries was increased from 20 to 25.[729]

The Global Environment Facility (GEF) of the United Nations is, under the supervision of the COP, the institutional structure referred to in Article 21 of the convention.[730] It is responsible for providing financial resources to the Contracting Parties that are developing countries 'on a grant or concessional basis',[731] and is funded by the contributions from the Contracting Parties that are developed countries. These contributions to the GEF are supposed to be in accordance with the resources needed as decided periodically by the COP and on the base of burden sharing among the contributing Contracting Parties.[732] However, nineteen of these have clarified in a declaration their understanding that this article does not authorise the COP to decide on the extent or nature and form of their contributions,[733] and from the available information covering the negotiating stage of the convention it appears that it was never the intention of the donor countries that mandatory fixed contributions would be set.[734] Additional voluntary contributions from the Contracting Parties as well as other countries and sources are also anticipated.[735]

The policy and strategy of the COP is that 'the institutional structure should over time assist all eligible countries to fulfil their obligations under the Convention'.[736] Eligibility criteria for access to and utilisation of the financial resources as well as programme priorities have been decided by the COP at its first meeting and are updated on a regular basis.[737] An MOU with the GEF clarifying the relationship between the two institutions was signed in 1996.[738] Contracting Parties that are developed countries can also provide other Contracting Parties with financial resources related to the implementation of the convention 'through bilateral, regional and other multilateral channels'.[739]

The GEF does not only provide financial resources for projects in the area of biodiversity, but also for projects in connection with climate change, international waters, land degradation, ozone depletion and persistent organic pollutants.[740] However, biodiversity projects constitute the largest percentage (about 36%) of the GEF grants.[741] Regarding biodiversity projects, the GEF has indicated that between 1991 and 2006 it provided about USD 2.2 billion in grants and leveraged about USD 5.17 billion in co-financing for 750 projects in 155 countries.[742] The annual average amount in biodiversity-related grants over this period is about USD 147 million.

Over the years, the CBD COP has given guidance to the GEF as to what the priorities should be for the utilisation of the GEF resources.[743] It appears that the GEF follows this guidance to some extent,[744] but that it has also set its own four strategic priorities, namely catalysing the sustainability of national systems of protected areas, mainstreaming biodiversity in production landscapes and sectors, implementing the Cartagena Protocol on Biosafety, and generating, disseminating and up-taking of good practices for addressing current and emerging biodiversity issues.[745] The greater part of the GEF's biodiversity resources between 1991 and 2006, USD 1.5 billion in grants, leveraging an additional USD 3.16 billion in co-financing, has been provided to fund protected areas.[746]

Each project proposal has to fulfil certain criteria. The applicant must for instance be on the list of eligible countries, and the project must be consistent with national priorities and programmes. The Latin American and Caribbean region has received the largest share of the GEF resources (34%), followed by Africa (28%) and Asia (21%). Nine percent of funding

was allocated to Europe and Central Asia, while global (6%) and multiregional (2%) account for the remainder.[747]

Since 1991, donor countries have funded the replenishment of the GEF every four years.[748] As already stated, the GEF's resources do not just support biodiversity projects, but also projects in relation to climate change, international waters, land degradation, ozone depletion and persistent organic pollutants. Interestingly, two countries that are in the CBD donor list, Iceland and Monaco, are not amongst the 32 donor countries that contributed to the GEF-4 replenishment in 2006.[749] Additional donor countries in the GEF list that are not in the CBD donor list include China, Korea, India and the United States.[750] It has been stated by the GEF Evaluation Office in 2009 that 'the GEF has been underfunded since GEF-2'.[751]

As required by the convention, the effectiveness of the financial mechanism in relation to the CBD has been reviewed several times.[752] In the latest review, covering the period 2001-2007, it is concluded that the effectiveness has been maintained or improved in many areas.[753] The GEF reporting to the CBD COP however, is one of the areas that could be enhanced.[754]

The World Bank is one of the GEF implementing agencies, playing a key role in managing GEF projects on the ground.[755] In addition to this, it also finances biodiversity-related projects itself through the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA) and through some World Bank trust funds. In the period from 1988 till 2008, the IBRD provided USD 1 billion in loans and the IDA USD 926 in credits (interest-free). The trust funds contributed USD 124 million over the same period.[756] This amounts to an annual average over this period of about USD 98 million per annum. The majority of funds go to the expansion and strengthening of protected areas, mechanisms for sustainable financing and park buffer zones. Of all ecosystems, forests have been allocated the main share of funds.[757]

Besides these international agencies, bilateral and regional sources also play an important financing role. The OECD provides information on the biodiversity-related bilateral aid per Development Assistance Committee (DAC) member, which are currently 22 countries and the EU. So-called Rio markers were developed in collaboration with the secretariats of the three Rio conventions to be able to identify activities that target the objectives of these conventions.[758] Biodiversity-related aid is defined by the OECD as 'activities that promote at least one of the three objectives of the United Nations Convention on Biological Diversity'.[759] The OECD reports that the commitments for the period 1998-2006 have been about USD 17 billion, which amounts to an annual average over this period of about USD 2 billion.[760] In 2007 the total amount committed to biodiversity-related aid was over USD 3 billion.[761] However, not all DAC members applied the biodiversity marker. Some have reported under the so-called 'biodiversity' sub-sector,[762] which will probably have affected the reliability of these figures.[763]

The biodiversity assistance has almost tripled in the period 2000-2006.[764] It appears that in the period 1998-2005, 70% of the aid was provided by just four countries: Japan, Germany, the Netherlands and the United States. Other major contributors were Canada, Denmark, France, Norway, Sweden and Switzerland.[765]

The Executive Secretary of the CBD has stated that 'beyond the Global Environment Facility (GEF), the Convention has mobilized few additional resources'.[766] The synthesis report also indicates that the GEF is seen, by both the developing countries and many donor countries, as the main source of funding for biodiversity projects.[767] When comparing the average annual bilateral aid amounts as recorded by the OECD with those of the GEF, these

statements seem somewhat surprising. The CBD Secretariat acknowledged that the actual funding by the GEF is smaller, but indicated that its structure is designed to directly respond to guidance from the COP and that its mandate is thus more focused and relevant to the CBD programmes.[768]

In 2008, on the proposal of Germany, the LifeWeb initiative was launched. This scheme is described by the CBD Secretariat as 'a partnership platform that strengthens financing for protected areas to conserve biodiversity, secure livelihoods and address climate change, through implementation of the CBD Programme of Work on Protected Areas'. The initiative is monitored by the Secretariat. So far, three donors have come forward: Germany (providing EUR 80 million), Finland (pledging EUR 0.5 million) and Spain (pledging EUR 5 million). Meanwhile, the total amount of funding requested is over USD 1 billion.

The environmental and other NGOs also provide funding for biodiversity-related projects, but aggregate figures are not available.[769] The same goes for the private sector.[770]

There is widespread consensus that the various financial resources are inadequate and that information on the funding of biodiversity-related projects is insufficient as well. The COP has made this clear in many of its decisions.[771] The most recent one on this issue is COP 9 Decision IX/11 of 2008, which deals with the in-depth review of the availability of financial resources.[772] The COP states in this decision that 'the lack of sufficient financial resources continues to be one of the main obstacles to achieving the Convention's three objectives, including the 2010 biodiversity target',[773] and that 'Parties and relevant organisations [must] improve the existing financial information'.[774] In relation to the latter, it is indicated in a note that the COP refers to the financial information that is made available by the Contracting Parties (in their national reports), the OECD, the GEF, and some major international conservation NGOs.[775] In an Annex to the decision, a Strategy for Resource Mobilisation in Support of the Achievements of the Convention's Three Objectives for the Period 2008-2015 is launched with the mission 'to substantially enhance the international flows and domestic funding for biological diversity in order to achieve a substantial reduction of the current funding gaps in support of the effective implementation of the Convention's three objectives and the 2010 target'.[776] It is stated in this strategy that this is 'financially affordable and feasible'.[777] One of its eight goals is to 'promote South-South cooperation as a complement to necessary North-South cooperation'.[778]

The lack of financial resources for the implementation of the CBD has also been recognised by several commentators. Some have indicated that the financing provisions are weak to start with.[779] In relation to the GEF funding for the CBD, it has been stated that 'there is an inherent shortfall to the necessary funds right from the outset'.[780] Another commentator remarks that 'the failure of industrial countries to provide resources has hampered the implementation [of the CBD]'.[781] A similar statement has been made by the IUCN in relation to the financing of protected areas by international donors and national governments, reproaching them with the failure to honour their commitments to biodiversity conservation.[782]

The COP has never calculated the actual annual funding that should be provided by donor countries to enable the developing countries to implement the convention.[783] The estimates that have been made by various organisations vary widely from USD 1.75 billion per annum over the period 1993-2000 as laid down in the United Nations Agenda 21, Chapter 15.8 (Conservation of Biological Diversity) to USD 20-USD 50 billion per annum as estimated by the UNDP in a project report of 1989.[784]

To support the Contracting Parties as well as other entities in need of funding for biodiversity-related projects, the Secretariat has developed the Catalogue of Funding Sources, which is 'a worldwide compendium of financial institutions, agencies, services and other entities that provide international assistance to biodiversity undertakings in particular in developing countries and countries with economies in transition'.[785]

An interesting recent development is the start of The Economics of Ecosystems and Biodiversity (TEEB) study initiated by the environment ministers of the G8 countries in 2007. The objective of the study is 'to draw attention to the global economic benefits of biodiversity, to highlight the growing cost of biodiversity loss and ecosystem degradation and to draw together expertise from the fields of science, economics and policy to enable practical actions moving forward'.[786] Included in the second phase of the study are the costs and benefits of actions to reduce these losses. This phase is scheduled to be completed in 2010.

ii. The Access and Benefit Sharing Incentive

One of the main objectives of the convention is 'the fair and equitable sharing of the benefits arising out of the utilization of genetic resources'.[787] 'Genetic resources' are defined in the convention as 'genetic material of actual or potential value',[788] and could originate from plants, animals or micro-organisms. These resources may for instance be used for basic research or for the development of products. The convention requires each Contracting Party to 'endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this convention'.[789] The access must be on mutually agreed terms and subject to prior informed consent of the Contracting Party providing the resources.[790] It is the intention that Contracting Parties that give access to these resources participate in the scientific research and share in the results of this research 'in a fair and equitable way'.[791] One of the anticipated positive effects is that the countries providing the resources could use the revenues to fund conservation programmes and protected areas within their territories.[792]

The users of genetic resources are research institutes, universities and botanical gardens (often as intermediaries), and the private sector.[793] Examples of benefits that may derive from genetic resources are results of research and development carried out on genetic resources, acquiring technologies that make use of those resources, participation in biotechnological research activities, or monetary benefits, such as the sharing of royalties arising from the commercialisation of products based on genetic resources.[794] The subject has become known as 'Access and Benefit Sharing' or 'ABS'.

In 2000, the COP established the Ad Hoc Open-ended Working Group on Access and Benefit-sharing to prepare a set of guidelines to assist the Contracting Parties with the implementation of ABS.[795] This resulted in the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, which were adopted at the sixth meeting of the COP in 2002.[796] These guidelines should help to address the concerns of the Contracting Parties that are developing countries that the commercial and scientific gains realised from their genetic resources usually mainly benefit the industrialised world. They are developed to assist these Contracting Parties in developing strategies on ABS and to identify the steps involved in the process of giving

access to genetic resources and sharing benefits.[797] The application of the Bonn Guidelines is on a voluntary base.[798]

The 2007 synthesis report shows that the implementation of the convention's ABS provisions as well as the Bonn Guidelines are at an early stage.[799] Only 37% of the reporting countries have used or considered the use of the guidelines when developing national legislation, policies or administrative measures on the issue.[800] A number of developing countries state that the guidelines are too complex.[801] Some of the reporting countries (37%) have put measures in place to ensure the fair and equitable sharing of the results of research and development and of the benefits arising from the commercial and other use of genetic resources with the Contracting Party providing them with such resources, but it appears that detailed information is limited.[802] However, the majority of reporting countries (76%) indicate that policies or mechanisms are in place to facilitate access to genetic resources for environmentally sound use by other Contracting Parties.[803]

Less progress was found in an in-depth study by the IUCN on the subject published in 2007. It reveals that 'fewer than 10% of CBD Parties had adopted ABS legislation' and that 'virtually none of those claimed that their ABS arrangements were functioning effectively'.[804] The same study also states that 'the provision of 'access' has not yielded any significant benefits to the access provider at the level of national implementation, while the compliance of users with benefit sharing is infrequent, in part because users feel that they do not receive anything of value in return for their compliance'.[805] Other commentators question whether ABS could ever be a financially attractive activity, especially now 'in many sectors, research dollars are flowing out of natural products and into synthetic chemistry'.[806]

At the seventh COP meeting in 2004, it was decided to initiate the preparation of an international regime on ABS.[807] This regime had to include the implementation of Article 8 (j) of the convention to enable indigenous and local communities to share the benefits arising from the utilisation of their traditional knowledge. In the years that followed, further negotiations on the international regime have taken place, and it is the intention to complete these negotiations before the tenth COP meeting in 2010.[808] It is yet unclear whether this instrument will be binding.[809] UNEP's Executive Secretary has recently stated in relation to the international regime on ABS that it 'has been too long in discussion with less than optimal action'.[810]

iii. The Access to and Transfer of Technology Incentive

It is laid down in the convention that each Contracting Party undertakes to provide and/or facilitate access and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biodiversity.[811] This must happen under 'fair and most favourable terms' in relation to Contracting Parties that are developing countries.[812] Contracting Parties must take legislative, administrative or policy measures with the aim that Contracting Parties, especially developing countries, which provide genetic resources, are given access to and transfer of technology that makes use of those resources, even if this technology is protected by patents or other intellectual property rights.[813] The private sector should be made subject to legislative, administrative or policy measures to facilitate access to, joint development and transfer of technology for the benefit of governmental institutions as well as the private sector of developing countries.[814] However, in case technology is protected by intellectual property rights, such as patents, the terms in relation to access and transfer must recognise and be consistent with these rights.[815] It is further

acknowledged that intellectual property rights may have an influence on the implementation of the convention.[816] A programme of work on technology transfer and technological and scientific cooperation was adopted in 2004.[817] The four elements of the programme cover (1) the need for each Contracting Party to carry out a technology assessment, (2) the necessity to have national, regional and international information systems in place for technology transfer and cooperation, and (3) the need to create enabling environments as well as (4) the need for capacity building and enhancement.[818] A strategy for the implementation of this programme of work was agreed upon in 2008.[819]

The role of intellectual property rights in relation to the transfer of technology has been an issue for many years. The position of the World Trade Organisation (WTO) on this is especially unclear and the COP has invited the WTO to acknowledge the relevant provisions of the Biodiversity Convention.[820] A similar situation appears to exist in relation to the World Intellectual Property Organisation (WIPO). In collaboration with this organisation as well as with UNCTAD a study was prepared by the CBD Secretariat on The Role of Intellectual Property Rights in Technology Transfer in the Context of the Convention on Biological Diversity.[821] The main conclusion appears to be that further research on this topic will be necessary.[822]

In the 2007 synthesis report, which is based on the third national reports submitted by the Contracting Parties, the implementation of the provisions in relation to the access to and transfer of technology (Article 16) as well as the programme of work have been evaluated.[823] It appears that only a very small number of Contracting Parties have comprehensive measures in place in relation to both the implementation of Article 16 and the programme of work,[824] and that 'overall progress is very limited'.[825] The Ad Hoc Technical Expert Group on Technology Transfer and Scientific and Technological Cooperation has identified the main causes for this result, which include lack of adequate funding,[826] lack of trust, ineffective governance and lack of knowledge.[827]

The development of a Biodiversity Technology Initiative could possibly improve this situation, and steps have been taken by the COP and the Secretariat for its preparation.[828] This initiative would follow the example set by the Climate Technology Initiative, which was initiated by nine OECD countries and launched in 1995 with the objective 'to foster international cooperation on the development and diffusion of climate-friendly and environmentally-sound technologies and practices consistent with the objectives of the United Nations Framework Convention on Climate Change'.[829] The Climate Technology Initiative is considered to be quite successful and the COP has requested the Secretariat and the Ad Hoc Open-ended Working Group on Review of Implementation of the Convention to further prepare the Biodiversity Technology Initiative with a view to consider its launch at the next COP meeting in 2010.[830]

iv. The Technical and Scientific Cooperation Incentive

It has been laid down in Article 18 of the convention that technical and scientific cooperation with other Contracting Parties, especially those that are developing countries, should be promoted.[831] The cooperation should involve human resources development and institution building.[832] To promote and facilitate this cooperation the establishment of a clearing-house mechanism is anticipated.[833]

Already at its first meeting in 1994, the COP decided to establish the Clearing House Mechanism (CHM),[834] which comprises an institution that collects and distributes relevant

information.[835] Meanwhile, a strategic plan as well as a programme of work have been developed for the CHM.[836] Its mission as defined in the strategic plan is 'to contribute significantly to the implementation of the Convention on Biological Diversity and its programme areas and cross-cutting issues, especially the 2010 target, through the promotion and facilitation of technical and scientific cooperation among Parties, other Governments and stakeholders'.[837] Each Contracting Party is supposed to set up its national CHM and appoint a national focal point.

Except for its CHM, the technical and scientific cooperation incentive is usually discussed by the bodies of the CBD in conjunction with the access to and transfer of technology incentive, which was discussed in the previous paragraph. The programme of work and the strategy for its implementation cover both incentives.[838] In relation to the section dealing with technical and scientific cooperation, the implementation strategy for instance calls for the development of cooperative partnerships in the form of research consortia consisting of research institutions in developing countries, the promotion of cooperation between universities and other research institutions of developed and developing countries and the support of the set-up of technological cooperation between private firms in developed and developing countries.[839]

It appears that the CHM has developed into a global network of websites, which includes the main website of the CBD, the national CHMs and those of partner organisations, such as NGOs and other institutions.[840] As of September 2006, there are 175 Contracting Parties that have appointed CHM focal points. It is indicated in the 2007 synthesis report that 'only a handful of national CHMs from developed countries are effectively assisting other countries to gain access to information in the field of scientific and technical cooperation, though most of the developed countries are very active in international cooperation',[841] and, furthermore, that it is unclear to what extent the CHM has initiated international cooperation initiatives.[842] In a more recent document, the Executive Secretary has stated in relation to the CHM that the 'full implementation of the strategic plan remains constrained by the limited capacity and resources available at national and global levels, including the Secretariat'.[843]

v. The Research and Training Incentive

The convention requires Contracting Parties to 'establish and maintain programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biodiversity and its components', while it also calls for developing countries to be supported to be able to implement this provision.[844] Research in relation to the conservation and sustainable use of biodiversity should be promoted and encouraged as well, particularly in developing countries.[845]

Research and training are usually integrated in the programmes of work that the COP has adopted for many cross-cutting issues and thematic work programmes. However, it is a subject that so far has never been addressed as a separate issue by the COP.

It appears from the 2007 synthesis report that the majority (72%) of the reporting Contracting Parties have established programmes for scientific and technical education and training as required by the convention and that 21% are in the process of doing so.[846] The level of support given to developing countries to realise their research and training programmes is, however, not discussed. It is therefore questionable whether this could be considered an incentive.

vi. The Information Incentive

Under the convention, Contracting Parties are required to 'facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity'.[847] The special needs of the Contracting Parties that are developing countries must be taken into account.[848] Relevant information includes the results of technical, scientific and socio-economic research, training and surveying programmes, specialised knowledge and indigenous and traditional knowledge.[849]

The COP has never adopted any specific decisions on these provisions. The 2007 synthesis report indicates that only a limited number of Contracting Parties (17) have taken comprehensive measures to facilitate the exchange of information, but that many Contracting Parties have taken some measures.[850] The majority of developed countries report to have taken the special needs of developing countries into account.[851] The introduction of international biodiversity information networks, such as the Global Biodiversity Information Facility (GBIF), has played an important role in relation to this incentive.[852] The Executive Secretary concludes that 'the information available and related networks have generated considerable impacts worldwide'.[853]

vii. The Cooperation Incentive

It has been laid down in Article 5 of the convention that Contracting Parties should cooperate with each other, directly or through international organisations, on issues beyond national jurisdiction and other matters of mutual interest in relation to the conservation and sustainable use of biodiversity.[854]

The importance of cooperation between Contracting Parties as well as with various stakeholders has been addressed by the COP in many decisions. It is stated in the 2007 synthesis report that nearly all Contracting Parties are in fact cooperating in different forms on an international level,[855] which facilitates the implementation of the convention.[856] However, cooperation with the private sector is considered to be negligible.[857]

viii. Conclusion

As the developing countries represent the centre of gravity of biodiversity, it has been obvious from the outset that the realisation of the CBD would depend heavily on their assessment of the attractiveness of the financial, economic and technical incentives included in the convention.

The most important one clearly is the financial resources incentive. Donor countries have contributed respectable amounts, especially in the past ten years, to provide 'new and additional financial resources', but these funds have not been sufficient to financially enable the developing countries to conserve biodiversity and use its components sustainably. At the same time various questions still need addressing.

For instance, figures on how much funding is in fact provided remain vague. This is especially the case in relation to data on bilateral/regional funding, which are provided by the OECD, but appear to be based on an inconsistent application of reporting terms by the donor countries. It is also unclear why these relatively substantial amounts of bilateral/regional funding are not used to replenish the GEF. The practical significance of the recently introduced LifeWeb initiative is still uncertain, while the size of biodiversity-related

funding provided by NGOs and by the private sector is unknown. All these issues need urgent clarification. At this stage, it is widely acknowledged that biodiversity-related funding is inadequate, but there are only wildly varying estimates of the additional funding that is actually required to enable the developing countries to implement the convention.

The ABS incentive should have been another cornerstone of the convention, but it must be concluded that the achievements so far have been limited. Meanwhile, several commentators have cast doubt on the value of this incentive for the developing countries. An international 'regime' on ABS has been under discussion for many years and should be concluded in 2010. It is still too early to predict the outcome.

The implementation of the access to and transfer of technology incentive proves difficult to effectuate, despite the adoption by the COP of a programme of work on the issue and a strategy for its implementation. The issues in relation to intellectual property rights are still unsolved.

The introduction of the Clearing House Mechanism appears to be the most significant development linked to the technical and scientific cooperation incentive. The CHM has been in operation for many years, but the value of this mechanism, especially for the developing countries, is still somewhat unclear. The other three incentives, the research and training incentive, the information incentive and the cooperation incentive, have not received the same level of attention from the COP, but appear to be quite appealing to most Contracting Parties. The introduction of the GBIF is certainly noteworthy in this respect.

As a result of the findings that the financial resources incentive is inadequate and that the ABS and the access to and transfer of technology incentives have not yet materialised, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

2.10 Element 10: Compliance and Enforcement

Benchmark I: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.*

Benchmark II: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

The three different aspects that will be scrutinised in relation to this element are: (1) the compliance with and enforcement of the CBD at the national level, (2) the supervisory measures stipulated by the CBD or introduced by its COP and (3) the supervision of compliance and enforcement by the Secretariat.[858] Although the international dispute settlement procedure available under the CBD will be discussed, it will not be included in

the final assessment of this element, since these procedures have never been invoked in relation to the conventions assessed in this study.[859]

i. Compliance and Enforcement of the CBD at the National (and Regional) Level

There are hardly any data available regarding compliance with and enforcement of the CBD by the Contracting Parties. In the GBO1, which was published in 2001, it is stated that 'one of the most controversial and sensitive issues in the Convention is that of compliance'.[860] Sub-section 2.5 already concludes that the implementation of the CBD is at a preliminary stage. Full compliance with the CBD by the vast majority of Contracting Parties can therefore not be expected.

To date, it appears that the CBD has not played any significant role in the national courts. Nevertheless, there have been a few cases that touch upon the convention. For instance, in the Australian case *Leatch v The National Parks and Wildlife Service* in which the legality of the killing of endangered fauna to be able to carry out road development was at stake.[861] In his verdict, the justice referred to the precautionary principle as laid down in, among others, the CBD.[862] Subsequently, it was held by the justice that there was no need for the court to decide whether or not the provisions of the CBD would be binding, since the precautionary principle was simply a principle of common sense.[863] Although the case was decided in favour of the protection of endangered fauna based on the precautionary principle, the effect of the CBD was not tested.[864]

In the British Columbia case (Canada) *MacMillan Bloedel v Joan Russow and Betty Kleiman et al*, the appellants argued that a logging operation would be in violation of the CBD and the UNFCCC.[865] In Canada, ratified treaties will not normally be applicable until they have been implemented into domestic law by legislation.[866] In this case, it was stated by the appellants that Canada had the obligation not to defeat the purpose of a treaty and that this requirement extended to the provinces. However, the court decided otherwise, and held that it had no jurisdiction to apply international environmental law.[867]

Probably the most interesting decision in relation to the application of the CBD concerns a judgment of the European Court of Justice (ECJ) in 2003. In this case the European Commission challenged Member State Luxembourg because of its alleged failure to implement many provisions of the Habitats Directive.[868] In relation to Article 22 (c) of this directive, which requires EU Member States to promote education and general information on the need to protect species of wild fauna and flora and to conserve their habitats and natural habitats, Luxembourg argued that by ratifying the Bern Convention as well as the CBD it had satisfactorily transposed the provision in question. Article 13 concerning public education and awareness is the relevant provision in the CBD. The ECJ accepted Luxembourg's argument and rejected the Commission's complaint of incorrect transposition of Article 22 (c) of the Habitats Directive.[869]

ii. Supervisory Measures regarding the CBD at the International Level

Two of the four broad categories of supervisory measures as discussed in Chapter III have been introduced under the CBD: the 'periodic reporting by the Parties' and the 'fact-finding and research by treaty institutions'.[870] Article 26 of the CBD requires the Contracting Parties to submit reports to the COP on measures taken to implement the convention and on their effectiveness in meeting the CBD objectives. The COP had to decide about the reporting

interval,[871] and it determined at its fifth meeting that the national reports should be submitted on a four-yearly basis.[872] Contracting Parties that are developing countries could be eligible for financial support for the preparation of their national report from the GEF or other bilateral and multilateral instruments.

In 1995, the COP decided that the first national reports should be submitted by the Contracting Parties before the deadline of 30 June 1997 for discussion at the fourth COP meeting scheduled for May 1998.[873] The focus in these reports had to be on the implementation of Article 6 and guidelines were added to the relevant decision.[874] The Secretariat received only one report by the original deadline, 11 by a subsequent deadline, and 94 by the end of 1998. The number of submitted first national reports rose to 140, 74% of the number of Contracting Parties, by the end of June 2005.[875]

The Contracting Parties were requested to submit their second national reports by 15 May 2001.[876] This time, a special format had been developed to facilitate the drafting of these reports.[877] By the deadline, 15 second national reports had been received.[878] By January 2004, almost three years after the deadline, 95 reports had been submitted and an analysis of the information laid down in these reports was being prepared.[879] At the end of June 2005, the tally stood at 120 second national reports (64%).[880]

For the third national report, a revised format was used, which took into account the recommendations made by many Contracting Parties for improvement.[881] The COP decided that the deadline for this report would be 15 May 2005.[882] When the Secretariat analysed the third national reports in 2007, 127 Contracting Parties (less than 70%) had submitted their report.[883] By the end of 2009, this number had risen to 146 (75%).[884]

The fourth national report, for which new guidelines were prepared by the Secretariat,[885] is especially important since it provides information regarding the progress made towards the achievement of the 2010 Biodiversity Target, which obviously will be high on the agenda of COP 10 in 2010. Furthermore, the information laid down in these reports contributes to the third edition of the Global Biodiversity Outlook, due in 2010. The deadline for the submission of the fourth national reports was 30 March 2009.[886] By this deadline, 23 national reports had been submitted, of which 21 from developing countries (including China) and 2 from developed countries (Australia and Japan). By the end of 2009 this number had risen to 81.[887]

The Executive Secretary has indicated that the national reports received by the Secretariat are not being reviewed, *i.e.* the information in these reports is not independently verified.[888]

The COP introduced at a later stage the so-called thematic reports, which deal with specific cross-cutting issues or thematic work programmes.[889] Contracting Parties are requested to submit these thematic reports before a fixed due date. Thematic reports have for instance been requested for alien species, access and benefit-sharing and protected areas. Based on these reports and other sources available on the subject, the Secretariat subsequently prepares an in-depth review of the issue for discussion by the COP. The submission rate of these reports by the Contracting Parties appears to be very low. The themes 'alien species' and 'protected areas' produced the best results with 61 and 55 reports respectively. The number of reports received on 'access and benefit-sharing', 'the expanded work programme for forests' and 'technology transfer and cooperation' were much lower: 19, 18 and 28 respectively.[890]

In relation to the submission of national as well as thematic reports, the Executive Secretary has made the following statement: 'It is clear that the number of both national and thematic reports received around the deadline was very small, and that most national

reports were received only two or three years after the deadline. In addition the information in the reports was of limited use to the Conference of the Parties in keeping under review the implementation of the Convention. One of the direct impacts of delayed submissions was that the meetings of the Conference of the Parties were provided inadequate information for reviewing or assessing the implementation of the Convention at the national level'.[891] The Executive Secretary subsequently suggested that some mechanism should be put in place in the form of incentives or disincentives by the COP to improve this situation.[892] The Secretariat does identify the Contracting Parties that do not fulfil their reporting obligations on the website, albeit somewhat concealed.[893] One of the guidelines for national reporting is that information provided by the Contracting Parties 'will not be used to rank performance or to otherwise compare implementation between individual contracting Parties'.[894] The GBO1 has the following to say about this guideline: 'without such measurable standards the long term credibility of the Convention as an instrument of genuine change may well be at stake'.[895]

To improve compliance, the Executive Secretary has proposed that the COP directs a decision specifically to those Contracting Parties that have not submitted their national reports, or introduce other 'ways or means to promote compliance'.[896] It has also been proposed to introduce a formal review of the national reports by the Secretariat or by peer review.[897] So far, these proposals have not been implemented.

Examples of fact-finding and research carried out by treaty institutions concern the in-depth reviews of the programmes of work prepared for the cross-cutting issues and the thematic programmes as well as the production of the Global Biodiversity Outlook (GBO).

Although the in-depth reviews are to a large extent based on the national and thematic reports, other sources are also consulted.

The GBO covers the status of implementation of the convention, and the GBO2, which was published in 2006, also includes issues such as the implementation of the Strategic Plan and the progress in relation to the 2010 Biodiversity Target. For the preparation of the GBO, many different sources are used, including relevant information from international organisations such as the FAO, UNEP, UNEP-WCMC, the NGOs, such as BirdLife International and the WWF, and various scientific and environmental institutions.[898]

Other supervisory measures such as inspection by treaty institutions or a non-compliance procedure, are not available under the CBD. As mentioned earlier, it is stated in GBO1 that compliance is 'one of the most controversial and sensitive issues in the Convention'.[899] Commentators have indicated that the CBD 'is weaker than some other treaties in that it lacks any provision for monitoring or inspection' as well as 'a formal non-compliance procedure'.[900] It has also been referred to as 'a tiger without teeth'.[901]

iii. Supervising Compliance and Enforcement by the Secretariat of the Convention

Just as discussed in sub-section 2.5 regarding implementation, the Secretariat plays an equally passive role if it comes to supervising compliance with and enforcement of the CBD by the Contracting Parties. It is obviously not within its mandate to broaden its responsibilities in this area. Currently, the Secretariat transposes the information contained in national and thematic reports into synthesis and other reports, but no review of the information takes place. The Secretariat has offered to formally review the contents of the national reports and also encouraged the COP to find 'ways and means' to improve on the reporting obligations of the Contracting Parties.[902] The COP has so far not responded to

these suggestions. As indicated by the SBSTTA, Contracting Parties want to avoid to be 'judged'.[903] One commentator has stated that the Contracting Parties, especially those that are OECD countries, try to avoid a transfer of power from the COP to the Secretariat, which should in their opinion 'remain a service organisation' and not 'an independent source of expertise'.[904]

iv. International Dispute Settlement Procedures

The convention provides for the settlement of disputes.[905] In the case of a dispute between Contracting Parties concerning the interpretation or application of the convention, the Contracting Parties involved should first try to find a solution by way of negotiation.[906] If this is not successful, they may jointly decide to use the good offices of or mediation by a third party.[907] If this also fails to settle the dispute, Contracting Parties have recourse to arbitration or can engage the International Court of Justice, but only if they have declared in writing to the depository of the convention that they accept one or both of these means.[908] If this is not the case, the dispute must be submitted to conciliation.[909]

The procedures for arbitration and conciliation are laid down in Annex II of the convention. It seems that so far none of these procedures has been used.

v. Conclusion

The compliance with and enforcement of the CBD's obligations by the Contracting Parties is clearly not a priority for the COP. It also appears that the supervisory measures at its disposal, national reporting and fact-finding and research by treaty institutions, are not really taken seriously by the Contracting Parties.

From the start of the convention, most Contracting Parties have not complied with their reporting obligations. Many Contracting Parties submit their national and thematic reports years after the due date or not at all. The contents of the reports that have been submitted usually leave a lot to be desired. Proposals by the Secretariat to play a more active role have not been taken up. Compliance in relation to the submission of the fourth national reports, which are supposed to play an important role in the evaluation of the 2010 Biodiversity Target, did not materially improve. Only 23 reports were submitted before the deadline.

The fact finding and research by treaty institutions is restricted to the publication of the Global Biodiversity Outlook and the in-depth reviews of the cross-cutting issues and thematic programmes. Although it seems that in relation to implementation and compliance these publications are based to a large extent on the national and thematic reports, additional sources of information are used as well.

None of these publications criticises the lack of compliance by identified Contracting Parties. It seems obvious that the Contracting Parties try to prevent any form of 'name and shame'. So far, they have been successful at that. It does not come as a surprise that supervisory measures such as inspection by treaty institutions and a non-compliance procedure do not exist under the CBD.

There is scarcely any information available regarding the Contracting Parties' compliance with and enforcement of the CBD at the national level. Consequently, the contribution of this element to the effectiveness of the convention is considered to be **unsatisfactory**.

3. The Effectiveness of the CBD: Conclusion

The assessment of the CBD shows a 'satisfactory' rating on four of the ten elements of the Effectiveness Test, whereas the score on the other six is 'unsatisfactory'.

The four elements recording a 'satisfactory' are 'Parties', 'Environmental NGOs and Other Stakeholder Groups', 'Objectives, Measures and Timing' and 'Reservations, Derogations and Other Exceptions'.

With 193 Contracting Parties, the convention has nearly reached universal membership. Even though the USA's non-ratification limits the impact of the CBD to some extent, it still receives a 'satisfactory' score on the 'Parties' element.

The bodies of the convention, and especially the Secretariat, maintain close relations with many environmental NGOs and an extensive number of members of other stakeholder groups. The long list of partnership agreements that have been signed underlines this commitment, and a 'satisfactory' rating on the 'Environmental NGOs and Other Stakeholder Groups' element is the result.

The CBD also scores a 'satisfactory' on the 'Objectives, Measures and Timing' element. Its objectives are clearly defined in the convention and the additional target 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss', better known as the 2010 Biodiversity Target, has given it a clear purpose. The convention's measures and programmes to implement the objectives are comprehensive. Although the CBD's scope in practice only partially extends to the high seas and forests, it has taken a pro-active approach regarding the protection of these ecosystems. The introduction of time-related targets enables the bodies of the convention to keep the pressure on in relation to the implementation of the various measures and programmes.

The 'Reservations, Derogations and Other Exceptions' element secures another 'satisfactory' score for the CBD. Contracting Parties are not allowed to make any reservations under the convention, while derogation clauses are not included and other exceptions not available.

However, the convention's ratings on the other six elements of the Effectiveness Test, namely 'Institutional Framework', 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness', 'Incentives' and 'Compliance and Enforcement' are all 'unsatisfactory'.

The CBD's institutional framework is well-established. Nevertheless, it has become clear that the Secretariat's capacity is insufficient to carry out its implementation support tasks and that the functioning of the SBSTTA is questionable. The first shortcoming is the result of a lack of funding, while the second stems from the fact that the SBSTTA has become too politicised, diminishing the focus on scientific progress. An 'unsatisfactory' score on the 'Institutional Framework' element is therefore unavoidable.

The convention receives another 'unsatisfactory' rating on the 'Implementation' element. The assessment reveals that the implementation by the Contracting Parties of the convention's core measures as well as some additional measures decided on by the COP is at a preliminary stage. The most encouraging result is the establishment of protected areas, although large gaps still remain. The Secretariat has proposed to play a more active role in relation to the supervision of the implementation of the convention, but the COP appears reluctant to give it additional responsibilities.

The CBD does not escape an 'unsatisfactory' score on the 'Monitoring' element either. It has become apparent that the monitoring of species and habitats by the vast majority of

the Contracting Parties is inadequate. The implementation of the Global Taxonomy Initiative and the development of global indicators for the 2010 Biodiversity Target are at an early stage. At the international level, various actions have been taken to improve the situation, such as the MA project, several technology-based initiatives and the creation of IPBES, but it will take time before their effect is felt.

The bodies of the convention have acknowledged the importance of 'Communication, Education and Public Awareness' (CEPA). A Global Initiative on CEPA has been adopted by the COP and some Contracting Parties have developed national CEPA strategies. The majority, however, still needs to initiate action in this area. An 'unsatisfactory' rating on this element is the result.

The CBD gets the same score on the 'Incentives' element. The incentives laid down in the convention appear to be compelling, especially to the developing countries, but their implementation has been disappointing. The crucial financial resources incentive has, in spite of donor countries' respectable contributions, been insufficient to enable the developing countries to forcefully implement the convention. Two other incentives that should have made a difference, the access and benefit sharing (ABS) incentive and the access to and transfer of technology incentive, have yet to materialise.

The final element on which the CBD is judged 'unsatisfactory' is 'Compliance and Enforcement'. Information regarding the Contracting Parties' compliance with and enforcement of the convention is hardly available. Furthermore, the value of the only supervisory measures at the COP's disposal, national reporting and fact-finding and research by treaty institutions, is severely restricted by Contracting Parties' poor discipline regarding the (timely) submission of their national and thematic reports. The COP has not adopted a non-compliance procedure. Moreover, it is evident that the supervisory role of the Secretariat needs strengthening.

The scores on six of the ten elements are still 'unsatisfactory' and, as a consequence, the Effectiveness Test confirms that this convention is **not yet effective**.

[1] Convention on Biological Diversity, (Rio de Janeiro) 5 June 1992, in force 29 December 1993; 31 I.L.M. (1992), 822.
[2] United Nations Framework Convention on Climate Change, (New York) 9 May 1992, in force 24 March 1994; 31 I.L.M. (1992), 849.
[3] Opened for signature as of October 1994, in force 26 December 1996; see Chapter II for more information on these conventions.
[4] See www.cbd.int/convention/parties/list (accessed 31 December 2009).
[5] UNEP Decision 14/26.
[6] See for a detailed description of the negotiation process McConnell F., *The Biodiversity Convention: A Negotiating History* (London, 1996).
[7] CBD, Preamble, sixteenth recital.
[8] CBD, Article 1.
[9] Decision VI/26 (2002), Annex.
[10] Decision VI/26 (2002), Annex, paragraph 11.
[11] See Decision IX/9 (2008).
[12] CBD, Article 2.
[13] See www.cbd.int/convention/parties/list (accessed 31 December 2009).
[14] See CBD, Articles 34, paragraph 1 and 35, paragraph 2.
[15] CBD, Article 34, paragraph 2.
[16] Statement of President Bush Snr., USA, to the UNCED, 12 June 1992; see Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 614.
[17] See CBD Handbook, 3rd edition, Section VIII, page 395 available on www.cbd.int/convention/refrhandbook.shtml; see also Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 629.
[18] The USA has observer status under the CBD, Article 23, paragraph 5; see also the fact sheet 'The United States and the Convention on Biological Diversity' prepared by Defenders of Wildlife and the Center for Biological Diversity and available on www.defenders.org (accessed 25 August 2010).
[19] Decision VI/21 (2002), Annex, paragraph 22.
[20] See for instance the CBD Press release of 1 May 2008, 'Brunei Darussalam becomes 191st Party to the Convention'.
[21] CBD, Article 34.
[22] CBD, Articles 33 and 35.
[23] CBD, Article 38.
[24] CBD, Articles 23, 24 and 25 respectively.
[25] Rules of Procedure for Meetings of the Conference of the Parties to the Convention on Biological Diversity, Rule 4, paragraph 1.
[26] CBD, Article 23, paragraph 3.
[27] Ibid.
[28] CBD, Article 23, paragraph 4 (a) and (b).
[29] CBD, Article 23, paragraph 4 (c), (d), (e) and (f).
[30] CBD, Article 23, paragraph 4 (g).
[31] CBD, Article 23, paragraph 4 (h).
[32] CBD, Article 23, paragraph 4 (i).
[33] Decision VI/26 (2002), Annex.
[34] CBD, Article 28, paragraph 1.
[35] CBD, Article 28, paragraph 2.
[36] See www.cbd.int/biosafety; see also sub-section 2.5.
[37] CBD, Article 29, paragraph 1.
[38] CBD, Article 29, paragraph 3.
[39] CBD, Article 30, paragraphs 2 and 3.
[40] CBD, Article 41.
[41] Rules of Procedure for Meetings of the Conference of the Parties to the Convention on Biological Diversity, Rule 21.
[42] Ibid., Rule 21, paragraph 2.
[43] CBD, Article 24, paragraph 2 and Article 40.

[44] CBD, Article 24, paragraph 1 and Rules of Procedure for Meetings of the Conference of the Parties to the Convention on Biological Diversity, Rule 28.
[45] Rules of Procedure for Meetings of the Conference of the Parties to the Convention on Biological Diversity, Rule 27; the current Executive Secretary is Mr. Ahmed Djoghlaf.
[46] See Decision IX/34 (2008), Table 2.
[47] See Stratos, *Management Review of the Secretariat to the CBD: Implementation Support to the Parties for Enhanced Implementation of the Convention* (2007), paragraph 29.
[48] United Nations Office of Internal Oversight Services/Internal Audit Division II, *Audit of UNEP Secretariat to the Convention on Biological Diversity (SCBD)(AA2006/220/03* (May 2006).
[49] Stratos, *Management Review of the Secretariat to the CBD: Implementation Support to the Parties for Enhanced Implementation of the Convention* (2007).
[50] Ibid., paragraph 9.
[51] Ibid., paragraph 13.
[52] Ibid., paragraph 16.
[53] Ibid., paragraph 62.
[54] Decision IX/34 (2008), paragraph 27 and Decision VIII/31 (2006), paragraph 33.
[55] See Document UNEP/CBD/COP/9/27 (2008), paragraphs 36-41.
[56] See Decision IX/34 (2008), Table 2.
[57] Siebenhüner B., 'Administrator of global biodiversity: The secretariat of the convention on biological diversity' (2007) 16:1 *Biodiversity and Conservation* 271.
[58] CBD, Article 25.
[59] CBD, Article 25, paragraph 1.
[60] CBD, Article 25, paragraph 2.
[61] Decision VIII/10 (2006), Annex III, paragraph 9.
[62] Ibid., paragraph 18.
[63] Ibid.
[64] Ibid.
[65] Ibid., paragraph 13.
[66] See Document UNEP/CBD/LG-GSPC/1/2 (2002).
[67] See Document UNEP/CBD/BCH/LG-MTE/1/1/Add.1 (2003).
[68] See CBD Secretariat, *CBD News (Special Edition): The Convention on Biological Diversity from Conception to Implementation* (Montreal, 2004) 15.
[69] Ibid., 17.
[70] See Document UNEP/CBD/COP/9/3 (2008), paragraphs 120 and 122 respectively.
[71] See Laikre L. et al., 'Wanted : Scientists in the CBD Process' (2008) 22 *Conservation Biology* 814-815.
[72] See Koetz T. et al., 'The role of the Subsidiary Body on Scientific, Technical and Technological Advice to the Convention on Biological Diversity as science-policy interface' (2008) 11 *Environmental Science & Policy* 508.
[73] See NATURE, Vol 454, 14 August 2008 available on http://fbae.org/2009/FBAE/website/biodiversity-and-biotechnology_nature.html.
[74] See Le Prestre P., 'The Operation of the CBD Convention Governance System' in Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002) 104.
[75] See Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 130.
[76] See for instance Document UNEP/IPBES/2/3 (2009).
[77] See Decision VIII/10 (2006), paragraph 23.
[78] See www.cbd.int.
[79] See Decision VIII/10 (2006), paragraph 26.
[80] See www.cbd.int/information/nfp.shtml.
[81] See Decision VIII/10 (2006), paragraph 26.
[82] See Document UNEP/CBD/SBSTTA/BRAINSTORMING/1/4 (2006), Annex I, paragraph 12.
[83] See Decision I/6 (1994), paragraph 1 and Annex I.
[84] Ibid., Annex I, paragraph 2.
[85] Ibid., Annex I, paragraph 3.
[86] Ibid., Annex I, paragraph 5.

87 See Document UNEP/CBD/COP/4/24 (1998), Annex III, endorsed by Decision IV/17 (1998), paragraph 1.
88 See www.cbd.int/convention/parties/contributions.shtml.
89 See for instance Decision IX/34 (2008), paragraph 16.
90 See www.cbd.int/convention/parties/contributions.shtml.
91 See Decision VIII/31 (2006) and Decision IX/34 (2008).
92 See Decision IX/34 (2008), Table 3 and Table 4 respectively.
93 Ibid., Table 5.
94 See Decision 13/CP.13 (2007) of the UNFCCC.
95 See www.cbd.int.
96 See Decision IX/34 (2008), paragraph 11.
97 See www.cbd.int/convention/parties/contributions.shtml.
98 Ibid.
99 See Stratos, *Management Review of the Secretariat to the CBD: Implementation Support to the Parties for Enhanced Implementation of the Convention* (2007) paragraph 33.
100 Ibid.
101 See Le Prestre P., 'The Operation of the CBD Convention Governance System' in Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002) 98; and Sieberhüner B., 'Administrator of global biodiversity: The secretariat of the convention on biological diversity' (2007) 16:1 *Biodiversity and Conservation* 263.
102 Under the heading 'Supervision by the Secretariat'.
103 CBD, Article 23, paragraph 5.
104 Ibid.; see also Rules of Procedure for Meetings of the Conference of the Parties to the Convention on Biological Diversity, Rules 6 and 7.
105 Ibid.
106 Decision IX/29 (2008), Annex.
107 See Decision VI/26 (2002), Annex.
108 Ibid.
109 See Decision II/13 (1995), Decision III/21 (1996), Decision IV/15 (1998), Decision V/21 (2000), Decision VII/26 (2004), Decision VIII/16 (2006) and Decision IX/27 (2008).
110 These partnership agreements, often in the form of a Memorandum of Understanding (MOU) or a Memorandum of Cooperation (MOC) are available on www.cbd.int/agreements.
111 See for instance Document UNEP/CBD/COP/9/2/Rev.1 (2008).
112 See Siebenhüner B., 'Administrator of global biodiversity: The secretariat of the convention on biological diversity' (2007) 16:1 *Biodiversity and Conservation* 267.
113 See Message of Dr. Ahmed Dhoghlaf, Executive Secretary of the Convention on Biological Diversity, to the Environmental NGOs of our Planet, Montreal, 22 February 2006.
114 See www.cbd.int/cooperation/organizations.shtml (accessed 28 August 2010).
115 See Document UNEP/CBD/COP/9/INF/50 (2008).
116 See www.iucn.org.
117 See www.birdlife.org/action/science/sites/index.html.
118 See www.plantlife.co.uk; at this stage the database mainly covers Europe.
119 See www.panda.org.
120 See for more information on both organisations Chapter III, sub-section 5.3.
121 See MOC between the Secretariat of the CBD and the IUBS, 28 November 2005, Article 1 and Article 2, paragraph 1.
122 See MOC between the Secretariat of the CBD and the Secretariat of DIVERSITAS, 29 October 1997, Article 2, paragraph 1.
123 See www.gisp.org.
124 See MOC between the Secretariat of the CBD and the GISP, 8 June 2001, Article 2.
125 See for more information sub-section 2.7.
126 The MOU has currently been signed by the Muséum National d'Histoire Naturelle de France, the Smithsonian National Museum of Natural History, the Royal Botanic Gardens Kew, the Royal Belgian Institute of Natural Sciences, the German Federal Agency for Nature Conservation, the National Commission for Wildlife Conservation and Development of the Kingdom of Saudi Arabia, the Comisión Nacional para el Conocimiento y Uso de la Biodiversidad de México, the Museums Nature Montréal and

the Higashiyama Botanical Gardens; see also Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 41; and www.cbd.int/cooperation/scientific.shtml.

127 See www.cbd.int/cooperation/partners.shtml.

128 Decision II/13 (1995).

129 Decision III/21 (1996), paragraph 7 (a)(ii).

130 See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 16.

131 Decision VI/20 (2002), paragraph 23.

132 The Work Programme covers the period 2002-2005.

133 The MOC was signed on 23 March 1996 and the Work Plan covers the period 2000-2002.

134 MOC between UNESCO and the Secretariat of the CBD, 11 May 1998.

135 See www.cbd.int/cooperation/related-conventions/mandates.shtml.

136 Decision VII/26 (2004), paragraphs 1 and 2.

137 See Chapter II for more information on this treaty.

138 See sub-section 2.4.

139 See sub-section 2.7.

140 See sub-section 2.8; see also Liaison Group of the Biodiversity-related Conventions, Sixth Meeting, Bonn, 31 May 2008.

141 See Minutes of the Sixth Meeting, Bonn, 31 May 2008, paragraph 9.

142 Decision IX/27 (2008), paragraph 3.

143 Ibid., paragraph 4.

144 Ibid., paragraph 5; see also Decision VIII/16 (2006), paragraph 7.

145 See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 19.

146 Decision III/21 (1996), paragraph 4.

147 See www.cbd.int/cooperation/activities.shtml.

148 Workshop on Forests and Forest Ecosystems: Promoting Synergy in the Implementation of the Three Rio Conventions, Viterbo, Italy, 5-7 April 2004; Workshop on Synergies and Cooperation with other International Conventions, Espoo, Finland, 2-4 July 2003; various outreach activities, such as the development of common web-based tools; see www.cbd.int/cooperation/activities.shtml.

149 See www.cbd.int/cooperation/liaison.shtml.

150 See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 9; a publication on forests, biodiversity, climate change and land degradation, and a publication on adaptation, biodiversity, climate change and land degradation, as well as the Rio conventions 2008 calendar.

151 See Chapter II for more information on the IPPC.

152 See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 25.

153 Ibid., paragraph 21.

154 See sub-section 2.5.

155 See www.un.org/esa/forests/cpf.html.

156 See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 26; see also UNEP-WCMC, *Synergies and Cooperation: A status report on activities promoting synergies and cooperation between Multilateral Environmental Agreements, in particular biodiversity-related conventions, and related mechanisms* (2004), paragraph 67.

157 MOU signed on 29 May 2008.

158 Letter of Intent signed on 12 March 2007.

159 The MOC was signed in 2001 and 'enhanced' in 2008.

160 MOC signed on 3 March 1997.

161 See for more information on UNEP Chapter III, sub-section 5.3 (iv).

162 Nairobi Declaration on the Role and Mandate of UNEP (1997).

163 See UNEP-WCMC, *Synergies and Cooperation: A status report on activities promoting synergies and cooperation between Multilateral Environmental Agreements, in particular biodiversity-related conventions, and related mechanisms* (Cambridge, 2004) 34.

164 See for more information on UNEP-WCMC Chapter III, sub-section 5.3 (iv); see also www.unep-wcmc.org and www.wcmc.org.uk/summary.htm.

165 See CBD, Article 21; see for more information on the GEF Chapter III, sub-section 5.3 (iv); see also sub-section 2.9 of this chapter.

166 Decision III/8 (1996), Annex: Memorandum of Understanding between the Conference of the Parties to the Convention on Biological Diversity and the Council of the Global Environment Facility.

[167] Ibid., Articles 2 and 3.
[168] See GEF Report to the Ninth Meeting of the Conference of the Parties to the Convention on Biological Diversity, 30 April 2008, paragraph 3.
[169] See Statement by Executive Secretary of the CBD to the Thirty-second meeting of the GEF Council, 12 November 2007.
[170] Ibid., see also sub-section 2.9.
[171] See for more information on the World Bank Chapter III, sub-section 5.3 (iv).
[172] Memorandum of Cooperation between the Secretariat of the CBD and the World Bank of 2 May 1997, Chapter I: Introduction.
[173] See for more information on the FAO Chapter III, sub-section 5.3 (iv).
[174] See for instance Decision II/16 (1995).
[175] See Document UNEP/CBD/9/21/Rev.1 (2008), paragraphs 27 and 28.
[176] The MOC is available on www.cbd.int/agreements.
[177] The MOU was signed on 27 May 2008; see for more information on the UNDP Chapter III, sub-section 5.3 (iv).
[178] MOU between the UNDP and the Secretariat of the CBD, Article 1.
[179] Ibid., Articles 2 and 3.
[180] The MOC was signed on 11 May 1998; see for more information on UNESCO Chapter III, sub-section 5.3 (iv).
[181] See for instance Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraphs 27, 29 and 30.
[182] See the MOC between the Secretariat of the CBD and UNESCO, Article I (a).
[183] See for more information on the WTO Chapter III, sub-section 5.3 (iv).
[184] See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraphs 37-39.
[185] See Decision IX/27 (2008), paragraph 10.
[186] MOU between the Secretariat of the CBD and the WIPO of 17 June 2002.
[187] The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), the United Nations Economic and Social Commission for Western Asia (ESCWA), the United Nations Economic Commission for Africa (UNECA), and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC).
[188] ASEAN Centre for Biodiversity, Council of Europe, Organisation for Economic Cooperation and Development (OECD), Permanent Commission of the South Pacific, South Pacific Regional Environment Programme (SPREP).
[189] Ministry for the Environment, Spatial Planning and Regional Development, Portugal, Ministry of Agriculture, Nature and Food Quality, Netherlands, Ministry of Housing, Spatial Planning and the Environment, Netherlands, Ministry of Agriculture, Lands, Fisheries and Forestry, St. Lucia, United States Department of Agriculture and State of Paraná, Brazil.
[190] See for instance Decision V/16 (2000).
[191] See www.iifb.net.
[192] Ibid.
[193] See www.cbdalliance.org.
[194] Decision VIII/17 (2006).
[195] See for more information www.cbd.int/business3.
[196] In 2008 ICI (Imperial Chemical Industries plc) was acquired by Akzo Nobel N.V..
[197] Airbus SAS is a subsidiary of the civil aircraft manufacturer EADS N.V..
[198] MOC between ICI Environment and the Secretariat of the CBD of 18 June 1998, Article 2 (a).
[199] MOU between Airbus SAS and the Secretariat of the CBD of 16 July 2008, Article 1.
[200] Ibid., Article 5.
[201] MOU between the Secretariat of the CBD and the Union for Ethical BioTrade of 1 December 2008, Article 1.
[202] See for more information www.cbd.int/cooperation/business.shtml and www.toyota.co.jp/en/environment/ecogrant.
[203] Written reply to questionnaire CBD Secretariat by Mr. Yibin Xiang, Programme Officer, 7 January 2010.
[204] See Document UNEP/CBD/COP/9/21/Rev.1 (2008), paragraph 43.
[205] More information on the Global Biodiversity Forum is available on www.countdown2010.net.
[206] See for more information www.plants2010.org.
[207] See for more information www.gisp.org.

[208] See for more information www.unep.org/grasp.
[209] Decision VII/26 (2004), paragraph 3.
[210] CBD, Preamble, sixth recital.
[211] CBD, Preamble, eighth recital.
[212] CBD, Preamble, seventh recital.
[213] Decision VI/26 (2002), Annex, Part A, paragraph 4.
[214] CBD, Article 1.
[215] CBD Article 2; see also Box I.
[216] See the declaration of Peru in CBD Secretariat, *Handbook of the Convention on Biological Diversity* (3rd edition, Montreal, 2004) 392; see also Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 588 and 655.
[217] See Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 616; see also Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 127.
[218] Decision VI/26 (2002), Annex, Part B, paragraph 11.
[219] CBD, Article 28.
[220] CBD, Article 6 (a).
[221] CBD, Article 6 (b).
[222] See Decision IX/8 (2008) for the latest guidance.
[223] See Decision VII/30 (2004), paragraphs 14-15 and Decision VIII/15 (2006).
[224] CBD, Article 8; see Article 2 and Box I for the definition of '*in-situ* conservation'.
[225] CBD, Article 8 (a) and (b).
[226] CBD, Article 8 (c).
[227] CBD, Article 8 (d).
[228] CBD, Article 8 (e).
[229] CBD, Article 8 (f).
[230] CBD, Article 8 (g).
[231] CBD, Article 8 (h).
[232] CBD, Article 8 (i).
[233] CBD, Article 8 (j).
[234] CBD, Article 8 (k).
[235] CBD, Article 8 (l).
[236] CBD, Article 8 (m).
[237] CBD, Article 8 (a)-(e).
[238] Decision VII/28 (2004), Annex.
[239] See www.cbd.int/protected/objectives.shtml.
[240] See www.cbd.int/protected/targets.shtml.
[241] See www.cbd.int/protected/intro.shtml.
[242] Decision VII/28 (2004), paragraph 25.
[243] See www.cbd.int/convention/wgpa.shtml.
[244] UNGA Resolution 60/30 of 8 March 2006.
[245] CBD, Article 8 (h).
[246] Decision VI/23 (2002).
[247] See Decision VII/13 (2004) and Decision VIII/27 (2006).
[248] See www.cbd.int/invasive/done.shtml.
[249] Decision V/16 (2000).
[250] Decision IV/9 (1998).
[251] A Mohawk term meaning 'everything in creation'.
[252] Decision VII/16 (2004), paragraph F.
[253] CBD, Article 9; see Article 2 and Box I for the definition of '*ex-situ* conservation'.
[254] CBD, Article 9 (c).
[255] CBD, Article 10 (a).
[256] CBD, Article 10 (b).
[257] CBD, Article 10 (c) and (d).
[258] CBD, Article 10 (e).
[259] Decision V/24 (2000).

260 See www.cbd.int/sustainable/addis.shtml.
261 Decision VII/12 (2004).
262 CBD, Article 7 (a).
263 CBD, Article 7 (b).
264 Global indicators have been identified as part of the framework for assessing the progress towards the 2010 Biodiversity Target, which will be discussed later.
265 See Document UNEP/CBD/SBSTTA/9/10 (2003), Annex II.
266 CBD, Article 14, paragraph 1 (a).
267 CBD, Article 14, paragraph 1 (b).
268 CBD, Article 14, paragraph 1 (c) and (d).
269 CBD, Article 14, paragraph 1 (e).
270 See www.cbd.int/impact/problem.shtml.
271 Decision VIII/28 (2006).
272 CBD, Article 14, paragraph 2.
273 Document UNEP/CBD/COP/9/20/Add.1.
274 Decision IX/23 (2008).
275 CBD, Article 12, first sentence.
276 This subject will be discussed in more detail in sub-section 2.8.
277 Decision V/15 (2000).
278 Ibid, paragraph 2 (e).
279 Decision VII/18 (2004).
280 Ibid., first recital.
281 See Balmford A. et al., 'Economic reasons for conserving wild nature' (2002) 297 *SCIENCE* 8.
282 Publications can be downloaded from www.cbd.int/incentives/tools.shtml.
283 Decision IX/6 (2008), paragraph 8.
284 See for more information on TEEB its website www.teebweb.org.
285 See also CBD, Article 8 (j); see Article 2 and Box I for the definition of 'genetic resources'.
286 See CBD, Article 15.
287 CBD, Article 15, paragraph 6.
288 CBD, Article 15, paragraph 7.
289 Decision VI/24 (2002).
290 Decision VII/19 (2004).
291 See Decision IX/12 (2008).
292 CBD, Article 16, paragraph 1.
293 CBD, Article 16, paragraph 2; see Articles 20 and 21 for the financial mechanism.
294 CBD, Article 16, paragraph 3.
295 CBD, Article 16, paragraph 5.
296 Decision VII/29 (2004).
297 Decision IX/14 (2008).
298 CBD, Article 19, paragraph 1; see Article 2 or Box I for the definition of 'biotechnology'.
299 CBD, Article 19, paragraph 2.
300 CBD, Article 19, paragraph 3.
301 Decision VII/29 (2004) and Decision IX/14 (2008) respectively.
302 CBD, Article 20.
303 CBD, Article 20, paragraph 2.
304 CBD, Article 21.
305 See www.cbd.int/development.
306 Decision IX/25 (2008).
307 CBD Technical Series No.10 and No.25 available on www.cbd.int/ts.
308 Decision VIII/30 (2006), paragraph 1.
309 Decision VIII/30 (2006).
310 Decision IX/16 (2008), Annex III.
311 Decision V/6 (2000), Section A, paragraph 1; a definition of 'ecosystem' can be found in CBD, Article 2 and in Box I of this chapter.
312 Ibid., Section B.
313 Ibid., Section C.

314 Decision VI/9 (2002).
315 Ibid., Annex, Section A, paragraph 1.
316 See Box II.
317 Decision VI/9 (2002), section C.
318 Decision VII/10 (2004), paragraph 3.
319 See the website of the partnership www.bgci.org/plants2010/1465.
320 See Decision VII/10, paragraph 4; more information is available on www.cbd.int/gspc/coordination.shtml.
321 See for more information www.cbd.int/gti/taxonomy.shtml.
322 Decision IV/1 (1998), Annex.
323 Decision VI/8 (2002).
324 Decision VIII/3 (2006).
325 Decision VII/14 (2004).
326 Ibid., Annex, section A, paragraph 1.
327 See www.cbd.int/tourism/process.shtml.
328 See CBD, Article 2 and Box I for the definition of 'ecosystem'.
329 See www.cbd.int/programmes.
330 Decision V/5 (2000), Appendix.
331 See www.cbd.int/agro/Whatstheproblem.shtml.
332 Decision V/5 (2000), Annex.
333 Ibid.
334 Ibid.
335 Ibid.
336 Ibid.
337 Ibid., Section II.
338 Decision VI/5 (2002), paragraph 13.
339 Decision VIII/23 A (2006).
340 Decision V/5 (2000), Section III.
341 See Decision V/23 (2000).
342 See for more information www.cbd.int/drylands/what.shtml.
343 Decision V/23 (2000), Annex 1, Section II.
344 See www.cbd.int/drylands/pow.shtml.
345 See for instance Decision II/9 (1995).
346 See www.cbd.int/forest/about.shtml.
347 Decision VI/22 (2002); the first programme of work was laid down in Decision IV/7 (1998).
348 See for instance CBD Secretariat, *The Convention on Biological Diversity: The Role of Science, Technology, and Technical Expertise* available on www.cbd.int/doc/publications/sttm-brochure-en.pdf.
349 Ibid.
350 See Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 128.
351 See for more information www.un-redd.org.
352 Decision IV/4 (1998).
353 See www.cbd.int/waters/about.shtml.
354 See Decision VII/4 (2004), Annex.
355 See www.cbd.int/waters/background.shtml.
356 See Document UNEP/CBD/SBSTTA/8/INF/5 (2003).
357 Decision VII/4 (2004), paragraph 20.
358 See www.cbd.int/waters/pow.shtml.
359 Decision VIII/1 (2006), Annex.
360 Ibid., paragraph 14.
361 See for instance Decision VIII/1 (2006), paragraph 4.
362 See www.cbd.int/island/done.shtml.
363 See Decision VIII/1 (2006), Annex, Section E.
364 Decision VIII/1 (2006), paragraphs 18-21 and Annex, paragraph 24.
365 See www.cbd.int/island/glispa.shtml.
366 See Decision VII/5 (2004), Annex I.
367 See www.cbd.int/marine/problem.shtml.

368 Decision VII/5 (2004), Annex I, paragraph 2.
369 'Mariculture' is the cultivation of marine organisms in their natural environment, but also includes growing marine organisms in seawater but outside their natural environment; examples are seaweeds, mussels, oysters, shrimps, prawns and salmon.
370 Decision VII/5 (2004), Annex I.
371 Ibid.
372 See www.cbd.int/marine/resources.shtml.
373 Decision VII/5 (2004), paragraph 31.
374 UNGA Resolution 60/30 of 8 March 2006.
375 See UNGA Report of the Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, dated 20 March 2006, paragraph 23.
376 UNGA Resolution 59/24 of 4 February 2005, paragraph 73.
377 See for instance the European Commission's Green Paper 'Towards a future Maritime Policy for the Union: A European vision for the oceans and seas' dated 7 June 2006, COM(2006) 275 final.
378 UNGA Report of the Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, dated 20 March 2006, paragraph 23.
379 See www.cbd.int/mountains/problem.shtml.
380 Decision VII/27 (2004), Annex.
381 Ibid., paragraph 6.
382 Ibid., Section C.
383 Ibid.
384 Decision VI/26 (2002), Annex, paragraph 1.
385 Ibid., paragraphs 4 and 5.
386 Ibid., Section C; see also Box IV.
387 Examples are: lack of political will, institutional weakness, lack of accessible knowledge and information, lack of financial and human resources, poverty, population pressure, climate change.
388 See for instance Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 617; and Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 122; and McGraw D., 'The Story of the Biodiversity Convention: From Negotiation to Implementation' in Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002) 20; and Herkenrath P., 'Opinion: Birds and the Convention on Biological Diversity: can ornithologists and bird conservationists make a difference?' (2002) 12 *Bird Conservation International* 99.
389 See Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 617.
390 Interview with Mr. Henk Simons, Senior Advisor Biodiversity IUCN Netherlands Committee (Amsterdam, 15 June 2006); see also McGraw D., 'The CBD – Key Characteristics and Implications for Implementation' (2002) 11:1 *RECIEL* 23.
391 See McGraw D., 'The CBD – Key Characteristics and Implications for Implementation' (2002) 11:1 *RECIEL* 23.
392 See Lasén Díaz C., 'Biodiversity for Sustainable Development: The CBD's Contribution to the MDGs' (2006) 15:1 *RECIEL* 31.
393 See Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 128.
394 See Herkenrath P., 'Opinion: Birds and the Convention on Biological Diversity: can ornithologists and bird conservationists make a difference?' (2002) 12 *Bird Conservation International* 99; and Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009) 622 respectively.
395 See Iles A., 'Rethinking Differential Obligations: Equity Under the Biodiversity Convention' (2003) 16 *Leiden Journal of International Law* 249; and Johnston S., 'Financial Aid, Biodiversity and International Law' in Bowman M. and Redgwell C. (Eds.), *International Law and the Conservation of Biological Diversity* (London, 1996) 271.
396 CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006) 6 and 7.
397 See Box III; see also www.cbd.int/2010-target/goals-targets.shtml.
398 See www.cbd.int/2010-target/framework/indicators.shtml; see also sub-section 2.7.
399 See Box III, Target 1.1.

400 See Box III, Target 4.3; see sub-section 2.5 for more information on the sub-targets and their implementation.
401 CBD, Article 26; see sub-section 2.10 for more information on national reports.
402 The synthesis reports present certain statistical findings in numbers, others in percentages; where relevant this study presents these outcomes in conformity with the synthesis reports.
403 It concerns the following documents: UNEP/CBD/WG-RI/2/INF/1 (2007), UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007), and UNEP/CBD/WG-RI/2/2/Add.1 (2007).
404 See Document UNEP/CBD/WG-RI/2/INF/1 (2007), paragraph 3; 127 reports represent less than 70% of the total number of Contracting Parties.
405 GBO3 was in preparation when this chapter was being finalised, so for this study GBO2, published in 2006, is used.
406 Decision VII/30 (2004), paragraph 23; see www.cbd.int/wgri.
407 Decision VI/27 (2002), paragraph 1.
408 Decision VII/30 (2004), paragraphs 14 and 15; see also Decision VIII/15 (2006).
409 Decision VI/26 (2002), Annex, Goal 3, Objective 3.1.
410 See www.cbd.int/nbsap (accessed 15 July 2009).
411 See www.cbd.int/nbsap/financial.shtml (accessed 20 July 2009).
412 See www.cbd.int/nbsap (accessed 15 July 2009).
413 See Documents UNEP/CBD/SP/PREP/1 (2009), paragraph 39 and UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 32.
414 See Document UNEP/CBD/WG-RI/2/2/Add.1 (2007), paragraph 5.
415 Ibid., paragraph 30.
416 See UNEP/CBD/WG-RI/2/2 (2007), Summary, paragraph (q).
417 See this sub-section, under 'Strategic Plan'.
418 CBD, Article 8 (a) to (e); see Document UNEP/CBD/SBSTTA/9/5/Rev.1 (2007), Executive Summary.
419 See sub-section 2.4.
420 Decision VII/30 (2004).
421 The word 'system' suggests that the protected areas of a country or region may be designated and designed to form a network in which the various components may conserve different portions of biodiversity; see for this explanation www.cbd.int/protected/intro.shtml.
422 See www.unep-wcmc.org.
423 In 1970 this was only 3 million km².
424 See Document UNEP/CBD/SBSTTA/10/INF/12 (2004), paragraphs 1 and 5.
425 Udvardy system; identified as a relevant indicator for progress on Target 1.1 of the 2010 Biodiversity Target (see Box III).
426 See Document UNEP/CBD/SBSTTA/10/INF/12 (2004), paragraph 12.
427 Ibid., paragraph 8.
428 See Document UNEP/CBD/COP/8/12 (2006), paragraph 14.
429 See on this issue for instance Herkenrath P., 'The Implementation of the Convention on Biological Diversity – A Non-Government Perspective Ten Years On' (2002) 11:1 *RECIEL* 33.
430 See Document UNEP/CBD/SBSTTA/10/INF/12 (2004), paragraph 17.
431 See the Programme of Work on Protected Areas, Action 1.1.5; 'gap analysis' is defined by the CBD as 'an assessment of the extent to which a protected area system meets protection goals set by a nation or region to represent its biological diversity' (www.cbd.int/protected/gap.shtml).
432 See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 86.
433 See for instance Herkenrath P., 'The Implementation of the Convention on Biological Diversity – A Non-Government Perspective Ten Years On' (2002) 11:1 *RECIEL* 33.
434 See Document UNEP/CBD/SBSTTA/9/5/Rev.1 (2003), paragraph 32.
435 Ibid., paragraph 33.
436 Emerton L., Bishop J., and Thomas L., *Sustainable Financing of Protected Areas: A global review of challenges and options* (IUCN, Gland, 2006).
437 Ibid., 12.
438 Ibid.
439 See Bruner A., 'How Much Will Effective Protected Area Systems Cost?' (2003) *Center for Applied Biodiversity Science, Conservation International*.

[440] See Balmford A. et al., 'Economic reasons for conserving wild nature' (2002) 297 *SCIENCE* 9.
[441] See Emerton L., Bishop J., and Thomas L., *Sustainable Financing of Protected Areas: A global review of challenges and options* (IUCN, Gland, 2006) 13.
[442] Ibid., 13-14.
[443] Document UNEP/CBD/SBSTTA/9/5/Rev.1 (2003), paragraph 19.
[444] Decision VIII/24 (2006), paragraph 2; see for more information www.cbd.int/protected/decisionVIII/24.shtml.
[445] COP 8 and COP 9.
[446] Decision IX/18 (2008), Chapter B.
[447] Decision VIII/24 (2006), paragraph 11.
[448] Ibid., paragraphs 35-46.
[449] Decision IX/18 (2008), Chapter A, paragraph 3.
[450] See Document UNEP/CBD/COP/9/11 (2008).
[451] Ibid., paragraph 13.
[452] Ibid., paragraph 8.
[453] Ibid., paragraph 18.
[454] Ibid., paragraph 22.
[455] Ibid., paragraph 8.
[456] Ibid., paragraph 12.
[457] See IUCN Position Paper on Invasive Alien Species in relation to the CBD COP 9 meeting in 2008, page 2.
[458] See McGeoch M. et al., 'Global indicators of biological invasion: species numbers, biodiversity impact and policy responses' (2010) 16 *Diversity and Distribution* 104.
[459] Ibid., 105.
[460] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007).
[461] Ibid., paragraph 143.
[462] Ibid., paragraph 147.
[463] Ibid., paragraph 139.
[464] Ibid., paragraph 158.
[465] See Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraphs 96-103.
[466] Ibid., paragraphs 96-99.
[467] Ibid., paragraph 102.
[468] See for instance Potvin C., Revéret J.-P., Patenaude G., and Hutton J., 'The Role of Indigenous Peoples in Conservation Actions: A Case Study of Cultural Differences and Conservation Priorities' in Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002) 159.
[469] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 78.
[470] See Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraphs 35-47.
[471] Ibid., paragraphs 42-43.
[472] Ibid., paragraph 45.
[473] Decision V/24 (2000).
[474] Decision VII/12 (2004).
[475] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraphs 167-179.
[476] Ibid., paragraph 169.
[477] Ibid., paragraph 170.
[478] Ibid., paragraph 171.
[479] Ibid., paragraph 172.
[480] Ibid., paragraph 175.
[481] Ibid., paragraph 176.
[482] See Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraphs 54-66.
[483] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 69.
[484] Ibid., paragraph 74.
[485] Ibid., paragraph 72.
[486] Ibid., paragraph 70.
[487] Ibid., paragraph 71.

[488] A positive incentive measure is described as an economic, legal or institutional measure designed to encourage beneficial activities; a negative incentive measure as a mechanism designed to discourage harmful or unsustainable activities.
[489] Perverse incentives are described as incentives that accelerate the loss of biodiversity.
[490] CBD, Article 11.
[491] See Decision VII/18 (2004).
[492] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 187.
[493] Ibid.
[494] Ibid., paragraphs 188-189.
[495] Ibid., paragraph 188.
[496] Ibid., paragraph 198.
[497] Ibid., paragraph 204.
[498] Cartagena Protocol, Article 1.
[499] Cartagena Protocol, Article 7.
[500] See www.cbd.int/biosafety/signinglist.shtml (accessed 31 December 2009).
[501] See sub-section 2.9 for more information.
[502] See Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 128.
[503] See Trouwborst A., 'International Nature Conservation Law and the Adaptation of Biodiversity to Climate Change: a Mismatch?' (2009) 21:3 *Journal of Environmental Law* 442.
[504] Decision VIII/30 (2006).
[505] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 47.
[506] See Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraphs 80-81.
[507] Goal 7, Target 7.1 (see Box III).
[508] Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraphs 80-81.
[509] Document UNEP/CBD/SBSTTA/12/2 (2007).
[510] Ibid., paragraphs 10-11.
[511] Ibid., paragraph 11.
[512] Ibid., paragraph 41.
[513] Ibid., paragraph 42.
[514] See Decision IX/7 (2008), paragraph (i).
[515] See Box II.
[516] See Documents UNEP/CBD/SBSTTA/12/3 (2007) and UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007).
[517] See Document UNEP/CBD/SBSTTA/12/3 (2007), paragraph 5.
[518] See Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraph 145.
[519] Ibid.
[520] Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007).
[521] Decision VIII/1 (2006).
[522] See Document UNEP/CBD/SBSTTA/13/2 (2007).
[523] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3, paragraphs 59-129.
[524] Ibid., paragraph 61.
[525] Ibid., paragraph 76.
[526] Ibid., paragraph 81.
[527] Ibid., paragraph 87.
[528] Ibid., paragraph 98.
[529] See Document UNEP/CBD/SBSTTA/13/2 (2007), paragraph 65.
[530] Ibid., paragraph 68.
[531] Ibid., paragraph 2 (g).
[532] Ibid., paragraph 46.
[533] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007), paragraph 119.
[534] See Document UNEP/CBD/SBSTTA/13/2 (2007), paragraphs 50 and 53.
[535] Decision V/23 (2000).
[536] See Document UNEP/CBD/SBSTTA/11/INF/7 (2005).
[537] Ibid., paragraph 177.
[538] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007).
[539] Ibid., paragraph 176.

[540] Ibid., paragraph 180.
[541] Ibid., paragraph 183.
[542] Decision VI/22 (2002).
[543] See Document UNEP/CBD/SBSTTA/13/3 (2007).
[544] Ibid., paragraph 3.
[545] Ibid., paragraph 4.
[546] The elements of the programme of work are discussed in sub-section 2.4.
[547] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007), paragraph 135.
[548] Ibid., paragraph 136.
[549] Ibid., paragraph 137.
[550] Ibid., paragraph 138.
[551] Ibid., paragraph 139; see also sub-section 2.9.
[552] Ibid., paragraph 145.
[553] Ibid., paragraph 146.
[554] Ibid., paragraph 149.
[555] Ibid., paragraph 154.
[556] Ibid., paragraph 155.
[557] Ibid., paragraph 157.
[558] Ibid., paragraph 166.
[559] See Document UNEP/CBD/SBSTTA/13/3 (2007), paragraph 43.
[560] Decision IX/5 (2008), fifth and sixth recital.
[561] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007).
[562] Ibid., paragraph 4.
[563] Ibid., paragraph 11.
[564] Ibid., paragraph 15.
[565] Ibid., paragraph 17.
[566] Ibid., paragraph 22.
[567] Ibid., paragraph 25.
[568] Ibid., paragraph 29.
[569] Ibid., paragraph 30.
[570] Decision IV/5 (1998).
[571] Decision VII/5 (2004).
[572] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007), paragraph 34.
[573] Ibid., paragraph 40.
[574] Ibid., paragraph 42.
[575] Ibid., paragraph 44.
[576] Ibid., paragraph 52.
[577] Ibid.
[578] Ibid., paragraph 54.
[579] Ibid., paragraph 55.
[580] Decision VIII/10 (2006), Annex II.
[581] See Document UNEP/CBD/WG-RI/2/INF/1/Add.3 (2007), paragraph 194.
[582] Ibid., paragraphs 195-199.
[583] Ibid., paragraph 200.
[584] Ibid., paragraph 201.
[585] Ibid., paragraph 202.
[586] Ibid., paragraph 203.
[587] Ibid., paragraph 205.
[588] See Document UNEP/CBD/WG-RI/2/INF/1/Add.1 (2007), paragraph 5.
[589] Document UNEP/CBD/WGRI/1/2 (2005); see Box IV for the goals and objectives of the Strategic Plan 2002-2010.
[590] Decision VIII/10 (2006), paragraph 25; see for in-depth discussion of the results of the first review CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006) 49-55.
[591] See Document UNEP/CBD/WG-RI/2/2 (2007).
[592] Ibid., Summary, paragraph (q).
[593] Ibid.

[594] Ibid., paragraph 35.
[595] Ibid., paragraph 40.
[596] Ibid., paragraph 42.
[597] Decision IX/8 (2008), paragraph 4.
[598] See Press Release UNEP, 'World governments fail to deliver on 2010 biodiversity target' of 29 April 2010; see also Document UNEP/CBD/SP/PREP/1 (2009), paragraph 46; and Document UNEP/CBD/COP/9/INF/13 (2008), Executive Summary, paragraph 1.
[599] See Document UNEP/CBD/COP/9/INF/13 (2008), paragraph 17.
[600] Ibid., paragraph 52.
[601] Ibid., paragraph 53.
[602] Ibid.
[603] CBD, Article 37.
[604] CBD, Article 7 (a) and (b).
[605] CBD, Annex I.
[606] CBD, Article 7 (c).
[607] CBD, Article 7 (d).
[608] CBD, Article 25, paragraph 2 (a).
[609] Decision III/10 (1996), paragraph 1.
[610] Document UNEP/CBD/SBSTTA/2/4 (1996), paragraph 12.
[611] Ibid.
[612] Document UNEP/CBD/COP/4/Inf.18 (1998), page 3.
[613] See Vié J.-C., Hilton-Taylor C., and Stuart S. (Eds.), *Wildlife in a Changing World: An Analysis of the 2008 IUCN Red List of Threatened Species* (IUCN, Gland, 2009) 67.
[614] See Document UNEP/CBD/SBSTTA/3/Inf.13 (1997), Chapter 2.1.
[615] Document UNEP/CBD/SBSTTA/9/10 (2003).
[616] See www.unep-wcmc.org/collaborations/BINU (accessed 9 September 2010).
[617] See Bubb P., Jenkins M., and Kapos V., *Biodiversity Indicators for National Use: Experience and Guidance* (UNEP-WCMC, Cambridge, 2005).
[618] Ibid., 16.
[619] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007).
[620] Ibid., paragraph 64.
[621] Ibid., paragraph 63.
[622] Commission of the European Communities, COM(2009) 358 final: Composite Report on the Conservation Status of Habitat Types and Species as required under Article 17 of the Habitats Directive (2009).
[623] Ibid., Chapter 3: Data Completeness and Quality, page 5.
[624] Ibid.
[625] Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 65.
[626] See sub-sections 2.4 and 2.5.
[627] Decision VI/26 (2002), Annex.
[628] See Box III.
[629] See Decision VII/30 (2004) and Decision VIII/15 (2006).
[630] See Decision VIII/15 (2006), Annex V; see also CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006) 21-43.
[631] See also www.twentyten.net for a summary table of the indicator framework.
[632] Decision VII/30 (2004).
[633] See www.cbd.int/2010-target/framework/indicators.shtml.
[634] See www.twentyten.net.
[635] Ibid.
[636] Ibid.
[637] Ibid.
[638] Ibid.
[639] See Walpole M. et al., 'Tracking Progress Toward the 2010 Biodiversity Target and Beyond' (2009) 325 *SCIENCE* 1503-1504.; see also Balmford A. et al., 'The 2010 challenge: data availability, information needs and extraterrestrial insights' (2005) 360 *Philosophical Transactions of The Royal Society B* 221-228; and Dobson A., 'Monitoring global rates of biodiversity change: challenges that arise in meeting the

Convention on Biological Diversity (CBD) 2010 goals' (2005) 360 *Philosophical Transactions of The Royal Society B* 229-241.

640 See CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006) 42.

641 See www.millenniumassessment.org.

642 See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005) 1 and 71 (scenarios).

643 Ibid., 23.

644 Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Biodiversity Synthesis* (Washington, 2005).

645 See Decision VIII/9 (2006), paragraph 23.

646 See Document UNEP/CBD/COP/9/INF/26 (2008), page 4.

647 See Decision IX/15 (2008).

648 See sub-section 2.2 (iv).

649 See UNEP Press release of 10 November 2008 'How Best to Put 'Nature-Based Assets' at the Top of the International Political Agenda Focus of Malaysia Meeting'.

650 Ibid.

651 See for a summary report of the meeting www.iisd.ca/ymb/biodiv/ipbes2.

652 See for the latest information on IPBES http://ipbes.net.

653 Decision IV/1 (1998).

654 In Decision VI/8 (2002), Annex, Chapter I, paragraph 1 'taxonomy' is described as follows: 'The classification of life, though it is most often focused on describing species, their genetic variability, and their relationships to one another. For the purpose of the Convention taxonomy is taken in its broadest sense and is inclusive of systematics and biosystematics at the genetic, species and ecosystem levels'.

655 See Decision VI/8 (2002), Annex, Chapter I, paragraph 3.

656 Ibid., paragraph 15.

657 See www.cbd.int/gti/partner.shtml.

658 See www.bionet-intl.org.

659 Memorandum of Cooperation between the Secretariat of the Convention on Biological Diversity and BioNET-INTERNATIONAL of 19 July 2004, Article 2, paragraph 1; MOC available on www.cbd.int/agreements.

660 See Document UNEP/CBD/SBSTTA/11/5 (2005).

661 See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007).

662 See Document UNEP/CBD/SBSTTA/11/5 (2005), Executive Summary, paragraph 3.

663 See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 15.

664 Ibid., paragraph 17.

665 Ibid., paragraph 27.

666 See www.gbif.org.

667 See Group on Earth Observations, *GEO-V* (Document 7, 2008) 16.

668 See First Coordination Meeting on a Global Species Information System (GSIS), Brussels, 19/20 April 2007, Communiqué by participants.

669 Ibid.

670 The Potsdam Initiative.

671 See for more information www.earthobservations.org; see also sub-section 2.3 (ii).

672 See Document UNEP/CBD/COP/9/INF/36 (2008).

673 A Memorandum of Understanding has been signed between the secretariats of the CBD and GEO in 2008.

674 See Group on Earth Observations, *GEO-V* (Document 7, 2008) 5.

675 Ibid., 15-16.

676 Ibid., 16-17.

677 Ibid., 8-14.

678 See Decision IX/15 (2008), paragraphs 10 and 11.

679 See Scholes R. et al., 'Toward a Global Biodiversity Observing System' (2008) 321 *SCIENCE* 1045.

680 Decision II/1 (1995), paragraph 4.

681 See www.cbd.int/gb01.

682 See www.unep.org/geo.

683 CBD, Article 13 (a).

[684] CBD, Article 13 (b).
[685] CBD, Article 12 (a).
[686] Decision IV/10 B (1998).
[687] Decision V/17 (2000).
[688] Decision VI/19 (2002).
[689] Ibid., Annex, first sentence.
[690] Ibid., Annex.
[691] Ibid.
[692] Decision VI/26 (2002), Annex, Chapter C, Goal 4.
[693] Ibid.
[694] See Document UNEP/CBD/COP/8/14 (2006), paragraph 16.
[695] Ibid., paragraph 17.
[696] Ibid., paragraph 21.
[697] Ibid., paragraph 30.
[698] See Decision VIII/6 (2006).
[699] Ibid., Annex II.
[700] Ibid., Annex III.
[701] Ibid., Part 1.
[702] Ibid., Part 2.
[703] Decision IX/32 (2008), paragraph 1.
[704] Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraphs 206-218.
[705] Ibid., paragraph 207.
[706] Ibid., paragraph 211.
[707] Ibid., paragraph 212.
[708] Ibid., paragraph 209.
[709] Ibid., paragraph 216.
[710] Document UNEP/CBD/WG-RI/2/2 (2007), paragraph 31
[711] Ibid.
[712] See www.cbd.int/countries.
[713] www.cbd.int.
[714] Such as Arabic, Chinese, French, German, Russian and Spanish.
[715] See www.cbd.int/cepa/toolkit/2008/cepa/index.htm (accessed 15 September 2010).
[716] See sub-section 2.9 for more information.
[717] See Decision VIII/6 (2006).
[718] See for more information on 2010 – The International Year of Biodiversity www.cbd.int/2010.
[719] CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006) 53-54.
[720] The Gallup Organisation, *Flash Eurobarometer290: Attitudes of Europeans towards the issue of biodiversity: Draft analytical report Wave 2* (European Commission, 2010) 5; see also Chapter III, sub-section 5.8.
[721] See Secretariat of the Convention on Biological Diversity, Dr. Ahmed Djoghlaf, Executive Secretary to the High-Level Conference on Business and Biodiversity, 'Engaging Business for Protecting Life on Earth', Lisbon, 13 November 2007.
[722] See Decision VI/21 (2002), paragraph 15.
[723] See Siebenhüner B., 'Administrator of global biodiversity: The secretariat of the convention on biological diversity' (2007) 16:1 *Biodiversity and Conservation* 265.
[724] Ibid., 270; see also McGraw D., 'The Story of the Biodiversity Convention: From Negotiation to Implementation' in Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002) 16 and 26.
[725] CBD, Preamble, sixteenth recital.
[726] Other relevant provisions are CBD, Article 8 (m) and Article 9 (e).
[727] See CBD, Article 20, paragraph 2.
[728] Decision I/2 (1994), Annex II; the following 20 countries were listed: Australia, Austria, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Italy, Japan, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland.
[729] Decision VIII/18 (2006), Annex; the additional five countries are: Belgium, Czech Republic, Ireland, Portugal and Slovenia.

730 See CBD, Article 39.
731 CBD, Article 21, paragraph 1.
732 Ibid.
733 See CBD Secretariat, *Handbook of the Convention on Biological Diversity* (3rd edition, Montreal, 2004) Section VIII, Second Declaration.
734 See for instance Roberts P., 'International Funding for the Conservation of Biological Diversity: Convention on Biological Diversity' (1992) 10:2 *Boston University International Law Journal* 7 (Reproduced by CIESIN with permission); and McConnell F., *The Biodiversity Convention: A Negotiating History* (London, 1996) 97; see also Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 125 and 127.
735 CBD, Article 21, paragraph 1.
736 See Decision I/2 (1994), Annex I.
737 Ibid.
738 Decision III/8 (1996).
739 CBD, Article 20, paragraph 3.
740 See www.thegef.org/gef/About_work.
741 See www.thegef.org/gef/biodiversity.
742 See GEF, *Global Support for Biodiversity Conservation* (2006) 1.
743 The latest guidance has been laid down in Decision IX/31 (2008), Annex.
744 See GEF Evaluation Office, Fourth Overall Performance Study of the GEF: Progress Towards Impact, Signposts November 2009, available on www.thegef.org/gef/eo_signposts.
745 See GEF, *Global Support for Biodiversity Conservation* (2006) 1.
746 Ibid., 2.
747 See GEF, *Global Support for Biodiversity Conservation* (2006) 5.
748 Pilot Phase (1991-1994): USD 1.00 billion; GEF-1 (1994-1998): USD 2.02 billion (34 donor countries); GEF-2 (1998-2002): USD 2.75 billion (36 donor countries); GEF-3 (2002-2006): USD 3.00 billion (32 donor countries); GEF-4 (2006-2010): USD 3.13 billion (32 donor countries); GEF-5 (2010-2014): Under Negotiation.
749 When asked, the CBD Secretariat could not explain why this is the case (written reply to questionnaire CBD Secretariat by Mr. Yibin Xiang, Programme Officer, 7 January 2010).
750 See GEF, Summary of Negotiations on the Fourth Replenishment of the GEF Trust Fund, 25 August 2006, Attachment 1.
751 See GEF Evaluation Office, Fourth Overall Performance Study of the GEF: Progress Towards Impact, Signposts November 2009, available on www.thegef.org/gef/eo_signposts.
752 CBD, Article 21, paragraph 3.
753 Stratos, *Third Review of the Effectiveness of the Financial Mechanism of the Convention on Biological Diversity* (2008) Chapter 3, paragraph 1 (Document UNEP/CBD/COP/9/INF/20 (2008)).
754 Ibid., Chapter 3, paragraph 3.
755 The other partners are the UNDP and UNEP.
756 See International Bank for Reconstruction and Development/WORLD BANK, *Biodiversity, Climate Change and Adaptation: Nature-Based Solutions from the World Bank Portfolio* (2008) 5.
757 Ibid., 9.
758 See Document UNEP/CBD/COP/9/INF/5 (2008), paragraphs 3-4.
759 Ibid.; see also www.oecd.org/dac/stats/rioconventions.
760 The information is available on www.oecd.org/dac/stats/rioconventions.
761 Ibid.
762 Finland, Germany, Netherlands, Norway and the United States.
763 The CBD Secretariat has published biodiversity-related aid figures for 1998-2005 (UNEP/CBD/WG-RI/2/INF/4 (2007), paragraph 54) and 2006 (UNEP/CBD/COP/9/INF/5 (2008), Executive Summary, paragraph 3) that add up to a substantial lower amount than the total recorded by the OECD for the same period. When asked about this discrepancy, the CBD Secretariat did not offer a full explanation (written reply to questionnaire CBD Secretariat by Mr. Yibin Xiang, Programme Officer, 7 January 2010). It did, however, indicate that: (1) the absolute number may not be completely accurate, (2) trends in biodiversity finances (not absolute numbers) form the basis for decision-making by the COP and (3) OECD markers, although criticised by many, are still the most cost-effective and convenient tool to support the political process.

764 See Document UNEP/CBD/COP/9/INF/5 (2008), Executive Summary, paragraph 3.
765 See Document UNEP/CBD/WG-RI/2/INF/4 (2007), paragraph 54.
766 See Document UNEP/CBD/COP/9/INF/13 (2008), paragraph 16.
767 See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 295.
768 Written reply to questionnaire CBD Secretariat by Mr. Yibin Xiang, Programme Officer, 7 January 2010.
769 See Document UNEP/CBD/WG-RI/2/INF/4 (2007), paragraph 47.
770 Ibid., paragraph 45; see also on this subject Rubino M., 'Biodiversity Finance' (2000) 76:2 *International Affairs* 223-240.
771 See for instance Decision IV/12 (1998), fourth recital and Decision VI/16 (2002), fifth recital and paragraph 5.
772 Document UNEP/CBD/COP/9/16 (2008).
773 Decision IX/11 (2008), Section A, fourth recital.
774 Ibid., paragraph 1.
775 Ibid., note 13.
776 Ibid., Section B, Annex, paragraph 8.
777 Ibid., paragraph 5.
778 Ibid., Goal 6.
779 See Roberts P., 'International Funding for the Conservation of Biological Diversity: Convention on Biological Diversity' (1992) 10:2 *Boston University International Law Journal* 7 (Reproduced by CIESIN with permission); see also Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 125 and 127.
780 See Miles K., 'Innovative Financing: Filling in the Gaps on the Road to Sustainable Environmental Funding' (2005) 14:3 *RECIEL* 203.
781 See Iles A., 'Rethinking Differential Obligations: Equity Under the Biodiversity Convention' (2003) 16 *Leiden Journal of International Law* 230.
782 See Emerton L., Bishop J., and Thomas L, *Sustainable Financing of Protected Areas: A global review of challenges and options* (IUCN, Gland, 2006) 77-78.
783 See Document UNEP/CBD/WG-RI/2/INF/4 (2007), paragraph 3.
784 Ibid., paragraphs 4 and 6.
785 See www.cbd.int/financial/international/shtml.
786 See www.teebweb.info.
787 CBD, Article 1.
788 CBD, Article 2.
789 CBD, Article 15, paragraph 2.
790 CBD, Article 15, paragraphs 4 and 5.
791 CBD, Article 15, paragraphs 6 and 7.
792 See Kate K. ten and Laird S., 'Biodiversity and business: coming to terms with the 'grand bargain'' (2000) 76:1 *International Affairs* 261; see also Tvedt M. and Young T., *Beyond Access: Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD* (IUCN, Gland, 2007) 1.
793 Relevant industries are: pharmaceuticals, botanical medicines, personal care, crop protection, commercial agricultural seed, ornamental horticulture and industrial enzymes; see Kate K. ten and Laird S., 'Biodiversity and business: coming to terms with the 'grand bargain'' (2000) 76:1 *International Affairs* 248.
794 See www.cbd.int/abs/intro.shtml.
795 See Decision V/26 (2000).
796 Decision VI/24 (2002), Annex.
797 Ibid., paragraph 12.
798 Ibid., paragraph 7.
799 See Document UNEP/CBD/WG-RI/2 INF/1/Add.2 (2007), paragraph 229.
800 Ibid., paragraph 225.
801 Ibid.
802 Ibid., paragraph 223.
803 Ibid., paragraph 221.
804 See Tvedt M. and Young T., *Beyond Access: Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD* (IUCN, Gland, 2007) 1; see also Iles A., 'Rethinking Differential Obligations: Equity Under the Biodiversity Convention' (2003) 16 *Leiden Journal of International Law* 233-234.

[805] See Tvedt M. and Young T., *Beyond Access: Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD* (IUCN, Gland, 2007) xv-xvi.
[806] See Kate K. ten and Laird S., 'Biodiversity and business: coming to terms with the 'grand bargain'' (2000) 76:1 *International Affairs* 261; see also Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996) 123-124 and 129.
[807] Decision VII/19 (2004), Section D.
[808] See Decision IX/12 (2008), paragraph 2.
[809] Ibid., Annex I, Section IV.
[810] Speech Mr. Achim Steiner, UNEP Executive Director, to the 2nd Diversitas Open Science Conference on 14 October 2009.
[811] CBD, Article 16, paragraph 1.
[812] CBD, Article 16, paragraph 2.
[813] CBD, Article 16, paragraph 3.
[814] CBD, Article 16, paragraph 4.
[815] CBD, Article 16, paragraph 2.
[816] CBD, Article 16, paragraph 5.
[817] Decision VII/29 (2004), Annex.
[818] Ibid.
[819] Decision IX/14 (2008), Annex.
[820] See Decision V/26 (2000), Section B, paragraph 2.
[821] See Document UNEP/CBD/COP/9/INF/7 (2008).
[822] Ibid., paragraph 160; see also Decision IX/14 (2008), paragraph 11; as well as www.cbd.int/tech-transfer/techstudyIP.shtml (accessed 17 September 2010).
[823] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraphs 231-254.
[824] Ibid.
[825] Ibid., paragraph 252.
[826] The GEF appears not to cover technology needs under the convention; see Document UNEP/CBD/COP/9/INF/1 (2008), paragraph 23.
[827] Document UNEP/CBD/COP/9/INF/1 (2008), paragraphs 34 and 36.
[828] See Document UNEP/CBD/AHTEG-TTSTC/INF/2 (2007); and Decision IX/14 (2008), paragraph 5.
[829] Document UNEP/CBD/AHTEG-TTSTC/INF/2 (2007), paragraph 3; see also the Climate Technology Initiative website www.climatetech.net.
[830] See Decision IX/14 (2008), paragraphs 6 and 7.
[831] CBD, Article 18, paragraph 2.
[832] Ibid.
[833] CBD, Article 18, paragraph 3.
[834] Decision I/3 (1994).
[835] See Document UNEP/CBD/COP/9/23 (2008), paragraph 9 (a).
[836] See Decision VIII/11 (2006).
[837] Ibid., Annex I.
[838] See Decision VII/29 (2004), Annex and Decision IX/14 (2008), Annex.
[839] See Decision IX/14 (2008), Annex, paragraph 28.
[840] Examples are BirdLife International, the GISP, the GTI and NatureServe; see for more information www.cbd.int/chm/thematic.shtml.
[841] See Document UNEP/CBD/WG-RI/2 INF/1/Add.2 (2007), paragraph 281.
[842] Ibid., paragraph 287.
[843] See Document UNEP/CBD/COP/9/23 (2008), paragraph 7.
[844] CBD, Article 12 (a).
[845] CBD, Article 12 (b).
[846] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 256.
[847] CBD, Article 17, paragraph 1.
[848] Ibid.
[849] CBD, Article 17, paragraph 2.
[850] See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 270.
[851] Ibid., paragraph 271.
[852] See sub-section 2.7 for more information on the GBIF.

853 See Document UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 273.
854 CBD, Article 5.
855 See UNEP/CBD/WG-RI/2/INF/1/Add.2 (2007), paragraph 306.
856 Ibid., paragraph 307.
857 Ibid., paragraph 311.
858 See Chapter III, sub-sections 4.10 and 5.10.
859 See Chapter III, sub-section 5.10 (iv).
860 CBD Secretariat, *Global Biodiversity Outlook 1* (Montreal, 2001) 245.
861 *Leatch v The National Parks and Wildlife Service* (1993) 81 LGERA 270.
862 Ibid., at 281 per Stein J.; see also on this case Verschuuren J., *Principles of Environmental Law: The Ideal of Sustainable Development and the Role of Principles of International, European, and National Environmental Law* (Baden- Baden, 2003) 111.
863 Ibid., at 282 per Stein J..
864 See for more information on this case Rothwell D. and Boer B., 'International Environmental Law and Australian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 36-38.
865 *MacMillan Bloedel v Joan Russow and Betty Kleiman et al* (1993) Court of Appeal for British Columbia, VI 01984.
866 Based on the so-called *Labour Conventions* case; *AG Canada v AG Ontario et al*, [1937] 1 DLR 673 (P.C.).
867 See for more information on this case Brunnée J., 'A Long and Winding Road: Bringing International Environmental Law Into Canadian Courts' in Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002) 47-48.
868 Council Directive 92/43/EEC of 21 May 1992.
869 Case C – 75/01 *Commission v Luxembourg* (2003) ECR I-1585; see also Backes Ch., Buuren P. van and Freriks A., *Hoofdlijnen natuurbeschermingsrecht* (Den Haag, 2004) 38.
870 The other two categories are: inspection by treaty institutions and the non-compliance procedure.
871 CBD, Article 26.
872 See Decision V/19 (2000), paragraph 5.
873 Decision II/17 (1995), paragraph 4.
874 Ibid., Annex.
875 See Document UNEP/CBD/WG-RI/1/10 (2005), paragraphs 4-8.
876 Decision V/19 (2000), paragraph 5.
877 Document UNEP/CBD/WG-RI/1/10 (2005), paragraphs 13-14.
878 Ibid, paragraph 16.
879 Ibid.
880 Ibid.
881 Ibid., paragraphs 22-25.
882 Decision VII/25 (2004), Section B, paragraph 8.
883 See Document UNEP/CBD/WG-RI/2/INF/1 (2007), paragraph 3.
884 See www.cbd.int/reports (accessed 9 December 2009).
885 See Decision VIII/14 (2006), paragraph 17.
886 Ibid., paragraph 4.
887 Information available on www.cbd.int/reports/search/?type=nr-04 (accessed 9 December 2009).
888 See Document UNEP/CBD/WG-RI/1/10 (2005), paragraph 64.
889 See for instance Decision IV/16 (1998), Annex II and Decision VIII/14 (2006), Annex.
890 Information available via www.cbd.int/reports/thematic.shtml (accessed 30 November 2009).
891 See Document UNEP/CBD/WG-RI/1/10 (2005), paragraph 32.
892 Ibid.
893 Information available on www.cbd.int/reports/search/?type=nr-04.
894 CBD Secretariat, *Global Biodiversity Outlook 1* (Montreal, 2001) 245.
895 Ibid.; see also Siebenhüner B., 'Administrator of global biodiversity: The secretariat of the convention on biological diversity' (2007) 16:1 *Biodiversity and Conservation* 269.
896 See Document UNEP/CBD/WG-RI/1/10 (2005), paragraph 83.
897 Ibid., paragraph 84.
898 CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006) vi.
899 CBD Secretariat, *Global Biodiversity Outlook 1* (Montreal, 2001) 245.

900 See Boyle A., 'The Rio Convention on Biological Diversity' in Bowman M. and Redgwell C. (Eds.), *International Law and the Conservation of Biological Diversity* (London, 1996) 48.
901 See Simons H., 'Biodiversiteitsverdrag CBD: COP in het zand?' (2008) 16 *Ecologie & Ontwikkeling* 2.
902 Document UNEP/CBD/WG-RI/1/10 (2005), paragraphs 83-84.
903 See Document UNEP/CBD/SBSTTA/BRAINSTORMING/1/4 (2006), paragraph 17.
904 See Le Prestre P., 'The Operation of the CBD Convention Governance System' in Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002) 101.
905 CBD, Article 27.
906 Ibid., paragraph 1.
907 Ibid., paragraph 2.
908 Ibid., paragraph 3.
909 Ibid., paragraph 4.

CHAPTER IX: CONCLUDING REMARKS

1. Introduction

The main research question addressed in this study is whether or not the five major international biodiversity-related conventions are effective. An introduction to the subject is provided in the first two chapters of this study, while the Effectiveness Test, which forms the basis for this research, is introduced and explained in Chapter III.

The Effectiveness Test consists of ten elements, which relate to (1) Parties; (2) Institutional Framework; (3) Environmental NGOs and Other Stakeholder Groups; (4) Objectives, Measures and Timing; (5) Implementation; (6) Reservations, Derogations and Other Exceptions; (7) Monitoring; (8) Communication, Education and Public Awareness; (9) Incentives; and (10) Compliance and Enforcement. For each of the ten elements, a benchmark has been defined to be able to assess the individual conventions. If the benchmark for an element is met, the convention scores a 'satisfactory' on that element, otherwise the result is an 'unsatisfactory'. A convention needs to score a 'satisfactory' on all ten elements before it is considered to be 'effective', which means, according to this study's definition of effectiveness, that it has the potential to eliminate or substantially ameliorate the problem that led to its creation. In chapters IV to VIII, the Effectiveness Test is applied to the five most important international biodiversity-related conventions:

— The Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention);
— The UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention);
— The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
— The Convention on the Conservation of Migratory Species of Wild Animals (CMS);
— The Convention on Biological Diversity (CBD).

In this concluding chapter, the results of the assessments of the five conventions are summarised and some comparative conclusions are presented in relation to the individual elements of the Effectiveness Test based on these results. Finally, it should again be pointed out that the Effectiveness Test has been designed to be a practical, broad and easily accessible test and its results should therefore be taken as indicative in nature.

2. The Effectiveness Test Results: A Summary

An overview of the Effectiveness Test results is presented in Table I below.

Table I

	Ramsar Convention	World Heritage Convention	CITES	CMS	CBD
Parties	S	S	S	U	S
Institutional Framework	U	S	U	U	U
Environmental NGOs and Other Stakeholder Groups	S	S	S	S	S
Objectives, Measures and Timing	U	U	U	U	S
Implementation	U	U	U	U	U
Reservations, Derogations and Other Exceptions	S	S	S	S	S
Monitoring	U	U	U	U	U
Communication, Education and Public Awareness	U	U	U	U	U
Incentives	U	S	U	U	U
Compliance and Enforcement	U	U	U	U	U
Final Verdict	Not Yet Effective	Not Yet Effective	Not Yet Effective	Not Yet Effective	Not Yet Effective

S= *Satisfactory* ***U***=*Unsatisfactory*

None of the five biodiversity-related conventions examined on the basis of the Effectiveness Test is considered to be 'effective'. The final verdict for all conventions is 'not yet effective', albeit that there is some variety between them in the number of 'unsatisfactory' elements. This indicates marked differences in the gaps that the individual conventions need to bridge to become 'effective'.

The World Heritage Convention shows the best results with five 'satisfactory' scores. Assuming that the right decisions will be taken and implemented, the convention could well become 'effective' in the not too distant future.

The CBD comes second with four 'satisfactory' scores. Since this is the 'youngest' of the five conventions and certainly the most comprehensive, this outcome could conceivably be improved on in the near future.

Both the Ramsar Convention and CITES score a 'satisfactory' on the same three elements. Their assessments indicate that major improvements are needed in order to develop these conventions into 'effective' legislation.

The CMS's outcome of just two 'satisfactory' scores falls furthest short of the requirement for effectiveness.

A closer look at the results per element of the Effectiveness Test, reveals some interesting points. There are two elements on which all five biodiversity-related conventions achieve a 'satisfactory' rating: 'Environmental NGOs and Other Stakeholder Groups' and 'Reservations, Derogations and Other Exceptions'. On the 'Parties' element a 'satisfactory' is scored by four of the five conventions.

On four of the ten elements an 'unsatisfactory' is received by all conventions: 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness' and 'Compliance and Enforcement', while on three elements all but one convention are presented with an 'unsatisfactory' rating: 'Institutional Framework', 'Objectives, Measures and Timing' and 'Incentives'. It may thus be concluded that these seven elements need the full attention from the parties as well as the bodies of the conventions.

In the next section, the overall results per element of the Effectiveness Test will be evaluated in more detail.

3. Conclusions per Element of the Effectiveness Test

i. Element 1: Parties

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention. It is especially important that those states are a party that can be expected, for instance because of their natural, political or financial resources, to make a significant contribution towards addressing the problem that has led to the creation of the convention.*

Four of the five conventions score a 'satisfactory' rating on this element. Only the CMS's score is 'unsatisfactory' as a result of its low number of parties and the fact that some pivotal states, such as the USA, Canada, Brazil, Mexico, Russia, China and Japan, have not joined yet. With some serious effort from the Secretariat and other bodies of the CMS as well as from the states concerned it must be possible to convert this score into a 'satisfactory' within a few years.

Although the CBD has reached almost universal membership, and therefore scores a 'satisfactory' on this element, it is obvious that the USA has to become a party too. Since this is the flagship convention for the conservation and sustainable use of biodiversity, the most powerful nation on Earth is sorely missed.

ii. Element 2: Institutional Framework

Benchmark: *For this element to be satisfactory, a biodiversity-related convention needs an institutional framework, which at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them.*

All five conventions have an institutional framework in place including a decision-making body, a secretariat and a scientific body.

The proper functioning of the secretariat, as the sole executive body of a convention, is considered to be an important contributing factor to the effectiveness of a biodiversity-related convention. It appears from the assessments that the secretariats of four conventions are facing two major problems: limited staff numbers and tight financial budgets to carry out their tasks. The latter issue may also impede the functioning of the scientific body, which appears to be the case for the Ramsar Convention and the CMS.

The World Heritage Convention is the only convention to score a 'satisfactory' on this element, due to the facts that it receives much of its budget from UNESCO and that its secretariat, the World Heritage Centre, seems less stretched for capacity.

The secretariats of the Ramsar Convention, CITES, the CMS and the CBD (through a management review) have clearly indicated that their staffing levels have become a serious constraint to adequately perform their tasks. Unfortunately, the decision-making bodies, which are responsible for the budgets, are usually reluctant to address the issue.

The problems concerning staff numbers and financial budgets of the four conventions are by no means insurmountable for those parties that are developed countries. Considering the urgent need to address the enormous problem of biodiversity loss and the relatively small amounts required, it is disturbing that these institutional issues have not yet been solved. The question arises whether this attitude could be partly motivated by apprehension about more active roles for the secretariats.

The CBD has the additional problem of a scientific body, the SBSTTA, whose performance is questionable, as its politicisation has diminished the focus on scientific progress. The likely creation of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), as the scientific body to provide policy relevant scientific advice on changes in biodiversity and ecosystem services, could prove valuable in addressing this issue.

iii. Element 3: Environmental NGOs and Other Stakeholder Groups

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders.*

The conventions assessed in this study are actively cooperating with their most important stakeholder groups, including the relevant international environmental NGOs, and all five score a 'satisfactory' on this element.

However, there is still room for improvement. Two matters require special attention: the cooperation between the five biodiversity-related conventions and the cooperation of each of these conventions with the private sector.

To improve the cooperation between the five biodiversity-related conventions, the CBD initiated the Biodiversity Liaison Group. Furthermore, memoranda of understanding or cooperation are signed and joint programmes of work or joint work plans established.[1]

Despite these initiatives, it appears that cooperation between the biodiversity-related conventions is still at a low level. The proposed actions are not very specific and lack urgency in relation to their implementation. The reports of the meetings of the Biodiversity Liaison Group convey the impression that none of the secretariats are convinced of the group's relevance. This seems a missed opportunity since many subjects, such as monitoring, CEPA activities, the international assistance incentive and reporting, could certainly benefit from a joint approach. A united front on some of these issues could lead to enhanced implementation of and compliance with the conventions by the parties and increased political clout as well as cost savings.

Although all five conventions are committed to closer cooperation with the private sector, only the secretariats of the Ramsar Convention and the World Heritage Convention have built beneficial relations with selected corporations and are receiving substantial annual donations in the process. The long established cooperation between the Ramsar Secretariat and the Danone Group and its affiliated company Evian is especially noteworthy. It is not exactly clear why the other conventions are lagging behind, but the fact that the secretariats are generally understaffed and not able to prioritise building these relationships is certainly a factor.

iv. Element 4: Objectives, Measures and Timing

Benchmark: *For this element to be satisfactory, a biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables.*

This element consists of several parts: (1) a description of the problem a convention intends to address, which should be the starting point of each convention, (2) the definition of clear and precise objective(s) addressing the problem, (3) the adoption of adequate measures addressing the problem, and (4) the introduction of a realistic timetable indicating when specific measures should be realised.

It is surprising that only the World Heritage Convention and the CBD have described the problem they intend to address in their preamble.[2] The other three conventions are silent on this important issue.

The CBD is the only convention that subsequently defines its objectives in one of its provisions.[3] In 2002, its COP introduced the 2010 Biodiversity Target, 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss', as an additional objective.[4] The World Heritage Convention has laid down its objective in the preamble.[5] However, the strength of this objective has been diminished by the mission statements defined by

UNESCO and the Committee at a later stage.[6] The objectives of the Ramsar Convention, CITES and the CMS lack clarity.

The CBD also distinguishes itself for having a comprehensive set of measures addressing the problem. Most of these measures were laid down in the convention and have been further developed by the COP. Important subjects that are not dealt with in the convention, such as climate change, have been added to the agenda by the COP.

The measures laid down in CITES are also extensive, but unfortunately there are some flaws in its trade system. Its National Legislation Project, on the other hand, is a very effective measure worth following by the other conventions.

The measures laid down in the World Heritage Convention are not convincing, but this has been largely compensated for by the Committee's decisions and the development of the Operational Guidelines. Nevertheless, it still needs a strategy as to how and when it will complete the World Heritage List for natural and mixed sites.

The measures introduced by the Ramsar Convention and the CMS are clearly insufficient since they lack clarity, precision and ambition.

The CBD leads when it comes to time-related targets. The most important example is the 2010 Biodiversity Target, which includes goals, sub-targets and global indicators.

Over the years, all five conventions introduced one or more strategic plans (CBD, CMS, Ramsar Convention), strategic visions (CITES) or other strategic documents (UNESCO/World Heritage Convention's Budapest Declaration and Natural Heritage Strategy) Although these strategic documents usually cover a set period, the parties seem not inclined to implement them within the stated timeframe. Besides, these plans are often not evaluated afterwards. Their practical value is therefore mostly very limited. A positive exception is the CBD Strategic Plan 2002-2010, which introduced the 2010 Biodiversity Target.

The only convention to score a 'satisfactory' rating on this element is the CBD.

v. Element 5: Implementation

Benchmark: *For this element to be satisfactory, the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies, and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat.*

None of the conventions scores a 'satisfactory' on this element. There are, however, marked differences between them. The closest to a 'satisfactory' comes the World Heritage Convention. Its nomination procedure for new World Heritage sites is structured in such a way that inscription of a site on the World Heritage List implies that implementation has largely been achieved. Even so, this convention still has to address some outstanding issues, the most important being the completion of the World Heritage List for natural and mixed sites,[7] before a 'satisfactory' score can be obtained.

Another distinctive approach to implementation was developed by the COP of CITES. In 1992, it introduced the National Legislation Project, which the Secretariat has energetically put into effect. By focusing on the four basic CITES requirements, involving the IUCN Environmental Law Centre and TRAFFIC USA for the analysis of progress, and using trade sanctions where necessary, the project has speeded up the convention's implementation.

More is needed before CITES can receive a 'satisfactory' rating on this element, but this project has demonstrably moved its implementation in the right direction.

It appears that the CBD still has a long way to go before it could realise a 'satisfactory' score on this element, but its time-related targets and, more importantly, their regular evaluation, definitely support the implementation process.

The Ramsar Convention and the CMS do as yet not have an ambitious strategy in place to spur on implementation.

Pro-active supervision as demonstrated by the CITES Secretariat can greatly enhance the progress made by the parties in implementing the convention. The other four secretariats have not shown the same commitment. It could be argued that CITES itself, by assigning some supervising responsibilities directly to the Secretariat,[8] has contributed to this achievement.

The lack of accurate information is a problem for most conventions. The secretariats largely depend on the national reports and other information that the parties should submit. However, many parties do not comply with this requirement, whereas any information that is received may not be complete or fully correct. This issue will also be discussed further in this section under Element 10: Compliance and Enforcement.

vi. Element 6: Reservations, Derogations and Other Exceptions

Benchmark: *For this element to be satisfactory, reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s).*

All five conventions score a 'satisfactory' on this element, which is a surprisingly positive outcome, since only the CBD excludes any form of reservation, derogation or other exception.

The other four conventions offer the parties the opportunity to make reservations, derogations or other exceptions. Especially those available under CITES and the CMS could potentially have a negative effect on the realisation of these convention's objectives.

Although not all parties deserve credit for this positive result, the fact that the vast majority have exercised restraint in their use is laudable.

vii. Element 7: Monitoring

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s).*

All five conventions receive an 'unsatisfactory' on the monitoring element. Especially the parties have failed to deliver. Under the CBD, the use of biodiversity state indicators has been introduced for monitoring purposes, but just a few parties have a complete system of data collection and maintenance in place.

Meanwhile, interesting developments are taking place at the international level that could lead to future improvements in monitoring performance. The following are especially noteworthy.

UN agencies such as UNEP and UNESCO have been carrying out various biodiversity-related studies and projects over the years. Examples are UNEP's Global International Waters Assessment (GIWA),[9] UNESCO's World Water Assessment Programme[10] and the IUCN/UNESCO Enhancing our Heritage project.[11]

Furthermore, many environmental NGOs have developed valuable monitoring systems, of which the IUCN's Red List of Threatened Species,[12] the WWF/ZSL's Living Planet Index,[13] BirdLife International/RSPB's Global Wild Bird Index,[14] and TRAFFIC's monitoring of illegal wildlife trade,[15] are particularly important.

The Millennium Ecosystem Assessment (MA), which was coordinated by UNEP and published in 2005, has been a real milestone in relation to the assessment of the status of the world's ecosystems. Especially the Ramsar Convention[16] and the CBD[17] have been actively involved in this assessment.

The use of new technologies such as monitoring from space and satellite telemetry is on the increase. It appears that the European Space Agency (ESA) and the National Aeronautics and Space Administration (NASA) as well as other space agencies are making a valuable contribution to the monitoring of wetlands (Ramsar Convention) and world heritage sites (World Heritage Convention), while satellite telemetry could become increasingly important for the monitoring of migratory species (CMS).

In the past decade, several initiatives have been taken to create data networks providing universal online access to biodiversity data. Important examples include the Global Register of Migratory Species (GROMS) and the CMS Information Management Plan (IMP), both initiated by the CMS institutions as well as the Global Species Information System (GSIS) and the Global Earth Observation System of Systems (GEOSS) (of which the GEO Biodiversity Observation Network (GEO BON) is the biodiversity arm), which are supported by the bodies of the CBD.

The 2010 Biodiversity Target is probably the most important initiative introduced by the CBD COP. By setting the target to significantly reduce the current rate of biodiversity loss at the global, regional and national level by 2010, a set of global indicators had to be developed to be able to assess the progress made. This has led to the establishment of the 2010 Biodiversity Indicators Partnership (2010 BIP), comprising over 40 partners, including UN agencies and some of their affiliates, biodiversity-related conventions, environmental NGOs and research institutions. This initiative should generate more and better information on biodiversity trends and its relevance will extend far beyond 2010.

Finally, the creation of an Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has at this stage almost become a certainty. Its mandate would be 'the provisioning of authoritative, independent, credible, inclusive, and internationally peer reviewed policy relevant scientific advice on changes in biodiversity and ecosystem services and their implications for human well-being at multiple scales'.[18] When installed, this body is supposed to add great value to the monitoring of biodiversity and ecosystems.

These and other monitoring initiatives, as well as increased efforts from the parties to the conventions, will certainly contribute to advances in the outcomes on the monitoring element.

viii. Element 8: Communication, Education and Public Awareness

Benchmark: *For this element to be satisfactory, the decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public*

awareness (CEPA) programme in place and should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties.

Although none of the conventions scores a 'satisfactory' on this element, all of them have acknowledged the importance of communication, education and public awareness (CEPA) for the realisation of their objectives. Initially, actions in this area were rather ad hoc in character, such as the creation of a website and online publication of general information and official documents. At a later stage, the decision-making bodies of four of the five conventions (CITES is the exception) adopted a more strategic approach.

The Ramsar Convention and the CBD stand out in this respect. Both conventions have developed a comprehensive CEPA strategy and encourage their parties to adopt national CEPA programmes as well. The fact that only a limited number of their parties have implemented such a programme has led to their 'unsatisfactory' scores on this element.

The CEPA plans of the World Heritage Convention and the CMS are less impressive. The Strategic Plan for World Heritage Documentation, Information and Education Activities, adopted by the World Heritage Committee in 1998, needs updating, and the CMS Outreach and Communication Plan does not include important CEPA issues such as education and the creation of public awareness and support. Furthermore, it appears that the introduction of national CEPA programmes by their parties has not really been on these convention's agendas.

CITES has not developed a strategic CEPA programme, which is rather surprising since such a programme could play a significant role in its fight against illegal wildlife trade by addressing the demand side.

The most valuable tool available to the bodies of a convention to communicate directly with the general public is their website. All five conventions have developed informative websites, but those of the Ramsar Convention and the CBD surpass the other three as regards comprehensiveness.

Finally, global actions such as the World Wetland Day (2 February), the International Day of Biodiversity (22 May), the International Year of Biodiversity (2010) and the Year of the Dolphin (2007, 2008) and Year of the Gorilla (2009) campaigns, organised by the secretariats of the Ramsar Convention, the CBD and the CMS respectively, are good examples of how to increase public awareness of biodiversity issues. However, initiatives like these can only be successful if strongly supported by the parties.

ix. Element 9: Incentives

Benchmark: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries.*

Only the World Heritage Convention scores a 'satisfactory' on this element. It is the sole convention to offer its parties a meaningful financial incentive, largely funded by the huge donations received from the United Nations Foundation, especially benefiting natural World Heritage sites. The convention's international assistance incentive is also very well developed, which further contributes to the positive score. Last but not least, World

Heritage status has become a remarkable promotional tool, often boosting tourism in the area and thus proving the value of the convention's marketing incentive.

Potentially, the CBD has many incentives in store for its parties, especially for those that are developing countries, but so far these have not been delivered. The all-important financial resources incentive, which should mainly be provided by the GEF, is inadequate and much more funding is required to implement the convention. Besides, the available information in relation to the total level of funding for biodiversity-related projects, including the financing received from bilateral and regional sources, remains insufficient. Both this and the actual funding requirement need urgent clarification. The access and benefit sharing (ABS) incentive should have been another cornerstone of the convention, but has not lived up to expectations. Negotiations regarding an international 'regime' are ongoing, but it is too early to predict the outcome. The access to and transfer of technology incentive foreseen in the convention proves difficult to effectuate as well, since issues in relation to intellectual property rights remain unresolved. The other available incentives such as the technical and scientific cooperation incentive, the research and training incentive, the information incentive and the cooperation incentive are still underdeveloped. As yet, the overall picture in relation to the CBD incentives is disappointing and an 'unsatisfactory' rating is the result.

The other three conventions receive an 'unsatisfactory' as well. They all lack a meaningful financial incentive. The 'small grants' offered by the Ramsar Convention and the CMS are too small and the financial assistance provided by CITES is also inadequate, especially when taken into account that joining CITES is a costly affair for most states. In some cases, this could probably be compensated for by CITES' economic incentive, but relevant information on this is lacking. In view of the limited financial resources of these three conventions, the development of their international assistance incentives, especially by the Ramsar Convention and CITES, is, however, impressive.

x. Element 10: Compliance and Enforcement

Benchmark I: *For this element to be satisfactory, at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat.*

Benchmark II: *For this element to be satisfactory, a biodiversity-related convention and/or its decision-making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more other compliance mechanism(s), including at least an active non-compliance procedure in some form.*

For each convention, the following aspects were looked at in some detail: (1) compliance with and enforcement of a convention at the national level, (2) regular and comprehensive reporting by the parties, (3) other supervisory measures available under the convention, and (4) supervision of compliance and enforcement by the secretariat.

On the first aspect, compliance and enforcement at the national level, very little information seems available. This is partly related to the circumstance that all conventions receive an 'unsatisfactory' on the implementation element and therefore can not be expected to have made significant progress on compliance and enforcement. At the same time, it is clear that more efforts by the decision-making bodies and secretariats are needed to ensure that detailed information on compliance and enforcement is reported and made public. The (direct or indirect) application of the conventions by the national courts of the parties has been very limited, with the exception of the Australian courts, especially concerning Australian World Heritage and Ramsar sites.

The second aspect, regular and comprehensive reporting by the parties, is essential to enable the bodies of the convention to assess the advancements made regarding matters concerning the convention. All five conventions require some form of national reporting from their parties. Overall, the performance of the parties in this area is very disappointing. The Ramsar Convention is the only convention where at least three-quarters of the parties submit their national reports on time. Unfortunately, the reports are not always reliable and compliance by the Ramsar parties in relation to other reporting requirements is far from impressive. The parties to the World Heritage Convention have reported just once in the past 40 years and there are only regionally consolidated versions of these reports available. Usually, less than half of the CITES' parties submit their biennial national reports on time, but a better outcome has now been achieved in relation to the annual reports, in which parties report specifics on their wildlife trade. In general, about 50% of the CMS parties eventually submit their reports to the secretariat. The CBD parties obtain a better result in this respect, often close to 75% (as required by the benchmark), but only years after the deadline has past.

Other supervisory measures (the third aspect) are fact-finding and the non-compliance procedure. It appears that all five conventions have some fact-finding procedure in place, of which those of the Ramsar Convention (Ramsar Advisory Missions), the World Heritage Convention (Reactive Monitoring) and CITES (Fact-finding and Verification Missions) are the most advanced. The in-depth reviews carried out by the CBD Secretariat and the review process available under the CMS are exploratory and have less of an impact.

The World Heritage Convention and CITES are the only two conventions that have some form of non-compliance procedure in place, which is another benchmark requirement. The World Heritage Convention introduced a procedure that provides for several measures, including the ultimate sanction: the deletion of a World Heritage site from the World Heritage List. The CITES non-compliance procedure also consists of several measures. Its most robust sanction is a recommendation to suspend trade in specimens of one or more species with the non-complying party.

The fourth aspect concerns the supervision of compliance and enforcement by the secretariat. This important body should be the driving force of a convention. Its supervision should be pro-active and include activities such as scrutinising the national reports and other information submitted by the parties, taking action when this information is insufficient, synthesising the information and make it public, collecting relevant data, arranging inspections etc. It appears that only the performance of the CITES secretariat fits this description. The CBD secretariat has indicated that it aspires to play a more active role, but it has so far been restricted by its COP. The secretariats of the other three conventions have also not been convincing in this respect.

Even though some conventions (especially CITES) meet one or more parts of the benchmark, none of them meets the entire benchmark, and all five thus receive an 'unsatisfactory' on this element.

4. Closing Comment

This journey along the five international biodiversity-related conventions in search for their effectiveness has hereby ended. The results of the Effectiveness Test show that none of the five biodiversity-related conventions can be considered to be 'effective', and that all of them still have a long way to go before this will be the case. This study has identified the strengths and weaknesses of each convention and pointed out improvements that should be made. Action is urgently needed. The role of these conventions in halting the loss of the world's biodiversity is crucial, and time is running out...

[1] See www.cbd.int/cooperation/related-conventions/mandates.shtml.
[2] CBD, Preamble, sixth, seventh and eighth recital, World Heritage Convention, Preamble, first three recitals.
[3] CBD, Article 1.
[4] Decision VI/26 (2002), Annex, Part B, paragraph 11.
[5] World Heritage Convention, Preamble, sixth recital.
[6] See World Heritage Centre, *World Heritage Information Kit* (2008) 1 and WHC Document 30.COM/INF.6A (2006), paragraph 9.
[7] Cultural sites have not been included in the assessment.
[8] See CITES, Article XIII.
[9] See Chapter IV, Ramsar Convention, sub-section 2.7.
[10] Ibid.
[11] See Chapter V, World Heritage Convention, sub-section 2.7.
[12] Relevant to CITES, the CMS and the CBD.
[13] Relevant to the Ramsar Convention and the CBD.
[14] Relevant to the Ramsar Convention, the CMS and the CBD.
[15] Relevant to CITES.
[16] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Wetlands and Water Synthesis* (Washington, 2005).
[17] See Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Biodiversity Synthesis* (Washington, 2005).
[18] See UNEP Press release of 10 November 2008 'How Best to Put 'Nature-Based Assets' at the Top of the International Political Agenda Focus of Malaysia Meeting'.

SUMMARY

The rapid decline of biological diversity as a result of human activities is a major challenge for the international community. National, regional and international legislation has been introduced to halt this trend.

This study reviews the effectiveness of the most significant international biodiversity-related conventions. The following five conventions are assessed for this purpose:

- The Convention on Wetlands of International Importance Especially as Waterfowl Habitat of 1971 (Ramsar Convention);
- The UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage of 1972 (World Heritage Convention);
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora of 1973 (CITES);
- The Convention on the Conservation of Migratory Species of Wild Animals of 1979 (CMS);
- The Convention on Biological Diversity of 1992 (CBD).

A three-step approach is followed in this study to determine the effectiveness of these conventions. The first step involves a survey of the concept of effectiveness in relation to international environmental agreements and leads to the following definition: an international biodiversity-related convention is considered to be effective when it has the potential to eliminate or substantially ameliorate the problem that led to its creation.

The second step is the development of a test to determine the effectiveness of the five conventions in relation to the problems they intend to address. This Effectiveness Test consists of ten elements, which relate to: (1) Parties; (2) Institutional Framework; (3) Environmental NGOs and Other Stakeholder Groups; (4) Objectives, Measures and Timing; (5) Implementation; (6) Reservations, Derogations and Other Exceptions; (7) Monitoring; (8) Communication, Education and Public Awareness; (9) Incentives; (10) Compliance and Enforcement.

For each of these elements, a benchmark is defined to assess the individual conventions. The outcome per element of these assessments can either be 'satisfactory' or 'unsatisfactory'. A 'satisfactory' rating on all ten elements is a prerequisite for a convention to be 'effective'.

The third step concerns the actual examination and assessment of each individual biodiversity-related convention on the basis of the Effectiveness Test.

The final verdicts on these conventions based on the application of the Effectiveness Test show that none of them can be considered to be 'effective', although differences in their respective scores indicate a variance in the gaps to be bridged to become 'effective'. The World Heritage Convention shows the best results (five 'satisfactory' elements out of ten), followed by the CBD (four 'satisfactory' elements out of ten).

A closer look at the results per element of the Effectiveness Test reveals that there are only two elements on which all five conventions achieve a 'satisfactory' rating: 'Environmental NGOs and Other Stakeholder Groups' and 'Reservations, Derogations and Other Exceptions'. On the 'Parties' element a 'satisfactory' is scored by four of the five conventions, with the CMS being the exception.

On four of the ten elements an 'unsatisfactory' is received by all conventions: 'Implementation', 'Monitoring', 'Communication, Education and Public Awareness' and 'Compliance and Enforcement', while on three elements all but one convention are presented with an 'unsatisfactory' rating: 'Institutional Framework', 'Objectives, Measures and Timing' and 'Incentives'. These seven elements thus need the full attention from the parties as well as the bodies of the conventions.

The study concludes with some important findings per element of the Effectiveness Test. The most noteworthy of these can be broadly summed up as follows: As the most important stakeholder group, states that are parties to these conventions must considerably increase their efforts in relation to most of the elements of the Effectiveness Test, secretariats need to have more supervising responsibilities, and financial resources have to be increased substantially to make these conventions effective.

TABLE OF CASES

International Court of Justice

Reservations to the Convention on the Prevention and Punishment of Genocide, Advisory Opinion, ICJ *Rep.* 1951, 15
Gabcikovo-Nagymaros Dam Case, ICJ *Rep.* (1997) 7
Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v. Rwanda), ICJ *Rep.* 2006, Joint Separate Opinion by Judges Higgins, Kooijmans, Elaraby, Owada and Simma of February 3, 2006

WTO Panel Decisions

Mexico v US - Restrictions on Imports of Tuna, 33 ILM (1994), 839
India, Pakistan and Thailand v US - Import Prohibition of Certain Shrimp and Shrimp Products, Report of the Panel, WT/DS58/R (1998) and Report of the Appellate Body, WT/DS58/AB/R (1998)

European Court of Justice

Case C - 182/89 *Commission v France* [1990] ECR I-4337
Case C - 510/99 *Xavier Tridon* (2001) ECR I-7777
Case C - 75/01 *Commission v Luxembourg* (2003) ECR I-1585

National Decisions

Australia

Commonwealth of Australia and Another v State of Tasmania and Others, the High Court of Australia [1983], 68 *I.L.R.* 266
Richardson v Forestry Commission (1987) 73 ALR 587
Queensland v Commonwealth (1989) 167 CLR 232
Leatch v The National Parks and Wildlife Service (1993) 81 LGERA 270
Friends of Hinchinbrook Society Inc v The Minister for the Environment & Ors (1997) 142 ALR 632 per Sackville J; on appeal (1997) 147 ALR 608 per Northrop, Burchett, and Hill JJ
Booth v Bosworth [2001] FCA 1453
Minister for the Environment and Heritage v Queensland Conservation Council (2004) 139 FCR 24
Minister for the Environment & Heritage v Greentree (No 2) [2004] FCA 741
Brown v Forestry Tasmania (No 4) [2006] FCA 1729

Canada

AG Canada v AG Ontario et al [1937], 1 DLR 673 (P.C.)
MacMillan Bloedel v Joan Russow and Betty Kleiman et al (1993) Court of Appeal for British Columbia, VI 01984

Germany

BVerfG, 2 BvR 695/07 vom 29.5.2007, Absatz-Nr.(1-42)

India

People United for Better Living in Calcutta v State of West Bengal AIR 1995 SC 922 at 227

The Netherlands

KB 5 January 1993, *M en R* 1994, nr. 36
ABRvS 5 July 1999 JM 1999/149
ABRvS 10 February 2000, *M en R* 2000, nr. 122
ABRvS 19 March 2003, *M en R* 2003, nr. 6
KB 11 September 2007, *Stb.* 2007, 347

United Kingdom

Coal Contractors Limited v Secretary of State for the Environment and Northumberland County Council High Court, Queen's Bench Division, 9 December 1993, 68 P & C R 285 (6 *Journal of Environmental Law* (1994) 369)

USA

HJ Justin and Sons v Brown 519 F.Supp.1383 (ED Calif. 1981)

Aa B. van der, *Preserving the heritage of humanity? Obtaining world heritage status and the impacts of listing* (Dissertation, University of Groningen, 2005).

Alder J. and Wilkinson D., *Environmental Law and Ethics* (London, 1999).

Anderson M. and Galizzi P. (Eds.), *International Environmental Law in National Courts* (London, 2002).

Andresen S. and Hey E., 'The Effectiveness and Legitimacy of International Environmental Institutions' (2005) 5 *International Environmental Agreements* 211.

Apte T., 'A People's Plan for Biodiversity Conservation: Creative Strategies that Work (and some that don't)' (2006) *International Institute for Environment and Development*.

Araoz G., 'World Heritage: Thirty years of US participation' (2002) 19:3 *The George Wright Forum* 4.

Ardia D., 'Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment' (1998) 19 *Michigan Journal of International Law* 497.

Arroyo-Quiroz I., Perez-Gil R. and Leader-Williams N., 'Developing Countries and the Implementation of CITES: The Mexican Experience' (2005) 8:1 *Journal of International Wildlife Law & Policy* 13.

Astrálaga M. and Carvajal A, *The Wetlands for the Future Fund: A Performance Review of the First Ten Years* (2006).

Baakman K., 'De betekenis van de belangrijkste internationale verdragen ter bescherming van biologische diversiteit in het Nederlandse recht' (2006) 20:1 *Tijdschrift voor Milieuschade en Aansprakelijkheidsrecht* 3.

Baastel, *Second Review of the Effectiveness of the Financial Mechanism for the United Nations Convention on Biological Diversity* (2001).

Backes Ch., *Duurzame Groei?* (Utrecht, 2000)

Backes Ch., Buuren P. van, Freriks A., *Hoofdlijnen natuurbeschermingsrecht* (Den Haag, 2004).

Balmford A. et al., 'Economic reasons for conserving wild nature' (2002) 297 *SCIENCE* 950.

Balmford A. et al., 'The Convention on Biological Diversity's 2010 Target' (2005) 307 *SCIENCE* 212.

Balmford A. et al., 'The 2010 challenge: data availability, information needs and extraterrestrial insights' (2005) 360 *Philosophical Transactions of the Royal Society B* 221.

Bankobeza G., *Strengthening the Implementation of Multilateral Environmental Agreements* (2005) Seventh International Conference on Environmental Compliance and Enforcement.

Barker D., 'Biodiversity Conservation in the Wider Carribbean Region' (2002) 11:1 *RECIEL* 74.

Barret S., *Environment & Statecraft: The Strategy of Environmental Treaty-Making* (Oxford, 2003).

Bastmeijer C., Bruin M. de, Verschuuren J., *Internationaal Natuurbeschermingsrecht: Inspiratie voor de Nationale Wetgever? Een onderzoek naar de verhouding tussen natuurbeschermingsverdragen en de Flora- en faunawet, Natuurbeschermingswet en Boswet* (2007).

Bauer S. and Biermann F., 'Does Effective International Environmental Governance Require a World Environment Organization' (2004) Global Governance Working Paper No. 13.

Bavikatte K., Jonas H. & Braun J. von, 'Shifting Sands of ABS Best Practice: Hoodia from the Community Perspective' (2009) available on www.unutki.org.
Beyerlin U., Stoll P.-T. & Wolfrum R. (Eds.), *Ensuring Compliance with Multilateral Environmental Agreements: A Dialogue between Practitioners and Academia* (Leiden, 2006).
BfU, *Organised environmental crime in the EU Member States* (2003).
Bilderbeek S. (Ed.), *Biodiversity and International Law: The Effectiveness of International Environmental Law* (Amsterdam, 1992).
BirdLife International, *Important Bird Areas and Potential Ramsar Sites in Europe* (Wageningen, 2001).
BirdLife International, *Red List Indices for migratory species* (2008).
Birnie P., Boyle A. and Redgwell C., *International Law & the Environment* (Oxford, 2009).
Bloch F., 'The "Brazilian Clause": A Recent Attempt to Create Linkages Between the CBD and CITES' (2001) 10:3 *RECIEL* 268.
Blundell A. and Mascia M., 'Discrepancies in Reported Levels of International Wildlife Trade' (2005) 19:6 *Conservation Biology* 2020.
Boccaccio L., Brunner A. and Powell A., *Could Do Better: How is EU Rural Development policy delivering for biodiversity?* (2009).
Bodansky D., *The Art and Craft of International Environmental Law* (Cambridge, 2010).
Bodansky D., Brunnée J., and Hey E. (Eds.), *The Oxford Handbook of International Environmental Law* (Oxford, 2007).
Boere G., Galbraith C. & Stroud D. (Eds.), *Waterbirds around the world: A global overview of the conservation, management and research of the world's waterbird flyways* (Edinburgh, 2006).
Boisson de Chazournes L., 'The Global Environment Facility (GEF): A Unique and Crucial Institution' (2005) 14:3 *RECIEL* 193.
Boitani L. et al., 'Change the IUCN Protected Area Categories to Reflect Biodiversity Outcomes' (2008) 6:3 *PLoS Biology* 436.
Bombay P., 'The Role of NGOs in Shaping Community Positions in International Environmental Fora' (2001) 10:2 *RECIEL* 163.
Bowman M., 'The Ramsar Convention Comes of Age' (1995) XLII *Netherlands International Law Review* 1.
Bowman M., 'International Treaties and the Global Protection of Birds: Part I' (1999) 11:1 *Journal of Environmental Law* 87.
Bowman M., 'International Treaties and the Global Protection of Birds: Part II' (1999) 11:2 *Journal of Environmental Law* 281.
Bowman M., 'The Ramsar Convention on Wetlands: Has it Made a Difference?' in Schram Stokke O., and Thommessen O. (Eds.), *Yearbook of International Co-operation on Environment and Development 2002/2003* (London, 2002) 61.
Bowman M., Davies P. and Redgwell C., *Lyster's International Wildlife Law* (Cambridge, 2010).
Bowman M. and Redgwell C. (Eds.), *International Law and the Conservation of Biological Diversity* (London, 1996).
Bragdon S., 'National Sovereignty and Global Environmental Responsibility: Can the Tension Be Reconciled for the Conservation of Biological Diversity?' (1992) 33:2 *Harvard International Law Journal* 381.

Brans E., *Liability for Damage to Public Natural Resources: Standing, Damage and Damage Assessment* (Deventer, 2001).
Bridgewater P., 'A New Context for the Ramsar Convention: Wetlands in a Changing World' (2008) 17:1 *RECIEL* 100.
Brown Weiss E. and Jacobson H. (Eds.), *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge, 1998).
Brownlie I., *Principles of Public International Law* (Oxford, 2003).
Bruner A., 'How Much Will Effective Protected Area System Cost?' (2003) *Center for Applied Biodiversity Science, Conservation International*.
Brunnée J., 'Enforcement Mechanisms in International Law and International Environmental Law' (2005) 1 *Environmental Law Network International* 3.
Bubb P., Jenkins M. and Kapos V., *Biodiversity Indicators for National Use: Experience and Guidance* (UNEP-WCMC, Cambridge, 2005).
Burgiel S., 'The Cartagena Protocol on Biosafety: Taking the Steps from Negotiation to Implementation' (2002) 11:1 *RECIEL* 53.
Burgiel S., 'Convention on Biological Diversity: a progress report' (2004) *Science and Development Network* available on www.scidev.net.
Burns W., 'Belt and Suspenders? The World Heritage Convention's Role in Confronting Climate Change' (2009) 18:2 *RECIEL* 148.
Butchart S. et al., 'Measuring Global Trends in the Status of Biodiversity: Red List Indices for Birds' (2004) 2:12 *PLoS Biology* e383.
Butchart S. et al., 'Global Biodiversity: Indicators of Recent Declines' (2010) 328 no. 5982 *SCIENCE* 1164.
Caddell R., 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention' (2005) 16:1 *Colorado Journal of International Environmental Law & Policy* 113.
Cairncross F., 'What Makes Environmental Treaties Work' (2004) 5:2 *Conservation in Practice.*
Camenzuli L., *The development of international environmental law at the Multilateral Environmental Agreements' Conference of the Parties and its validity* (2008).
Cameron C., *Evaluation of IUCN's Work in World Heritage Nominations* (2005).
Cameron C., *Evaluation of the application of 'outstanding universal value' for cultural and natural heritage* (2005).
Cameron C., *Context of the World Heritage Convention: Key Decisions and Emerging Concepts* (UNESCO, 2009).
Cameron J., Werksman J. and Roderick P., *Improving Compliance with International Environmental Law* (London, 1996).
Carson R., *Silent Spring* (London, 1962).
Cassese A., *International Law* (Oxford, 2005).
Castro G., Chomitz K. and Thomas T., *The Ramsar Convention: Measuring its Effectiveness for Conserving Wetlands of International Importance* (2002).
CBD Secretariat, *Global Biodiversity Outlook 1* (Montreal, 2001).
CBD Secretariat, *CBD News (Special Edition), The Convention on Biological Diversity: From Conception to Implementation* (Montreal, 2004).
CBD Secretariat, *Handbook of the Convention on Biological Diversity* (3rd edition, Montreal, 2004).
CBD Secretariat, *Global Biodiversity Outlook 2* (Montreal, 2006).

Chambers W., *Interlinkages and the Effectiveness of Multilateral Environmental Agreements* (Tokyo, 2008).
Chape S., Harrison J., Spalding M. and Lysenko I., 'Measuring the extent and effectiveness of protected areas as an indicator for meeting global biodiversity targets' (2005) 360 *Philosophical Transactions of The Royal Society B* 443.
Chapman A., *Numbers of Living Species in Australia and the World* (2009).
Chasek P., 'NGOs and State Capacity in International Environmental Negotiations: The Experience of the Earth Negotiations Bulletin' (2001) 10:2 *RECIEL* 168.
Chayes A. and Handler Chayes A., *The New Sovereignty: Compliance with International Regulatory Agreements* (Cambridge, 1995).
Chen J., 'Across the Apocalypse on Horseback: Imperfect Legal Responses to Biodiversity Loss' (2005) 17:12 *Journal of Law & Policy* 13.
Christ C. et al., *Tourism and Biodiversity: Mapping Tourism's Global Footprint* (2003)
Churchill R. and Ulfstein G., 'Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law' (2000) 94 *The American Journal of International Law* 623.
CITES Secretariat, *Activity Report of the CITES Secretariat 2008-2009* (2009).
Cliquet A., Backes C., Harris J. & Howsam P., 'Adaptation to climate change: Legal challenges for protected areas' (2009) 5:1 *Utrecht Law Review* 158.
CMS Secretariat, *Guide to the Convention on the Conservation of Migratory Species of Wild Animals* (Bonn, 2001).
CMS Secretariat, *25 Years of Journeys: A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979-2004)* (Bonn, 2004).
Congressional Research Service, *CRS Report for Congress, International Illegal Trade in Wildlife: Threats and U.S. Policy* (Updated 22 August 2008).
Cooney R., 'CITES and the CBD: Tensions and Synergies' (2001) 10:3 *RECIEL* 259.
Cooney R. & Jepson P., 'The International World Bird Trade: What's wrong with blanket bans?' (2006) 40:1 *Oryx* 1.
Cooper M. & Rosser A., 'International regulation of wildlife trade: relevant legislation and organisations' (2002) 21:1 *Scientific and Technical Review* 103.
Council of Europe, *Environment Conservation and the Media* (Strasbourg, 1997).
Council of Europe, *Communication and Biodiversity* (Strasbourg, 2001).
Council of Europe, *Naturopa: The 25 years of the Bern Convention* (2004).
D'Amato A. and Engel K. (Eds.), *International Environmental Law Anthology* (Ohio, 1995).
Deda P., 'Between culture and science: are migratory animals a world heritage?' (2008) 49 *World Heritage* 70.
Déjeant-Pons M. & Pallemaerts M., *Human Rights and the Environment* (Strasbourg, 2002).
Delbaere B., *Biodiversity Indicators and Monitoring: Moving Towards Implementation* (ECNC, Tilburg, 2002).
Deloitte, *Final Report Management Audit of the World Heritage Centre* (2007).
Demmke C., 'Towards Effective Environmental Regulation: Innovative Approaches in Implementing and Enforcing European Environmental Law and Policy' (2001) *Academy of European Law online.*
Dernbach J., 'Targets, Timetables, and Effective Implementing Mechanisms: Necessary Building Blocks for Sustainable Development' (2005) 6:1 *Sustainable Development Law & Policy* 46.

Desai B., 'Mapping the Future of International Environmental Governance' (2002) 13 *Yearbook of International Environmental Law* 43.
Desai B., *Institutionalizing international environmental law* (Ardsley, 2004).
Dickson B., 'Land and Resource Management: I. CITES in Harare: A Review of the Tenth Conference of the Parties' (Yearbook 1997) *Colorado Journal of International Law & Policy* 55.
Di Leva C., 'The Conservation of Nature and Natural Resources through Legal and Market-Based Instruments' (2002) 11:1 *RECIEL* 84.
Di Leva C. and Tymowski W., *The Ramsar Convention on Wetlands: The Role of 'Urgent National Interests' and 'Compensation' in Wetland Protection* (IUCN, Gland, 2000).
Dillon S., 'The Mirage of EC Environmental Federalism in a Reluctant Member State Jurisdiction' (1999) 8 *New York University Environmental Law Journal* 1.
Dobson A., 'Monitoring global rates of biodiversity change: challenges that arise in meeting the Convention on Biological Diversity (CBD) 2010 goals' (2005) 360 *Philosophical Transactions of The Royal Society B* 229.
Dodd A., Hardiman A., Jennings K. & Williams G., 'Protected areas and climate change: Reflections from a practitioner's perspective' (2010) 6:1 *Utrecht Law Review* 141.
Doremus H., 'Patching the Ark: Improving Legal Protection of Biological Diversity' (1991) 18 *Ecology Law Quarterly* 265.
Dotinga H. & Trouwborst A., 'The Netherlands and the designation of marine protected areas in the North Sea: Implementing international and European law' (2009) 5:1 *Utrecht Law Review* 21.
Douvere F. and Laffoley D., 'Marine World Heritage: the time is now. Protecting the 'best of the best' in the ocean' (2010) 56 *World Heritage* 18.
Drucker G. and Damarad T., *Integrating Biodiversity in Europe - A Review of Convention on Biological Diversity General Measures and Sectoral Policies* (ECNC, Tilburg, 2000).
Dudley N. (Ed.), *Guidelines for Applying Protected Area Management Categories* (2008).
Duwe M., 'The Climate Action Network: A Glance Behind the Curtains of a Transnational NGO Network' (2001) 10:2 *RECIEL* 177.
EIA, *Upholding the Law: The Challenge of Effective Enforcement* (2007).
Emerton L., Bishop J. and Thomas L., *Sustainable Financing of Protected Areas: A global review of challenges and options* (IUCN, Gland, 2006)
Emory, Jr. W., *Improving National Enforcement for Better Governance Implementing MEAs* (UNEP, 2005).
Engels B. and Winkler S., 'World Heritage and the 2010 Biodiversity Target' (2008) 49 *World Heritage* 4.
Engler M. and Parry-Jones R., *Opportunity or threat: The role of the European Union in global wildlife trade* (TRAFFIC, 2007).
Esty D. et al., *Pilot 2006 Environmental Performance Index* (2006).
Esty D. et al., *2008 Environmental Performance Index* (2008).
European Commission, *LIFE-Nature: communicating with stakeholders and the general public* (Luxembourg, 2004).
European Commission, *Green Paper – Towards a future Maritime Policy for the Union: A European vision for the oceans and seas* (2006).
Faizi S., 'CBD: The unmaking of a treaty' (2004) 86:11 *Current Science* 1472.
Farrell M., *EU and WTO Regulatory Frameworks: Competition or Complementarity ?* (London, 1999).

Farrier D. and Tucker L., 'Wise Use of Wetlands under the Ramsar Convention: A Challenge for Meaningful Implementation of International Law' (2000) 12:1 *Journal of Environmental Law* 21.
Favre D., 'Elephants, Ivory and International Law' (2001) 10:3 *RECIEL* 277.
Finlayson M., 'Second chance to save Australia's wetlands' (2008) *Science Alert* available on www.sciencealert.com.au/opinions/20083010-18377.html.
Fisher S. and Reeves R., 'The Global Trade in Live Cetaceans: Implications for Conservation' (2005) 8:4 *Journal of International Wildlife Law & Policy* 315.
Fitzmaurice M. and Redgwell C., 'Environmental Non-Compliance Procedures and International Law' (2000) XXXI *Netherlands Yearbook of International Law* 35.
Foxall J., Grigg A. and Kate K. ten, *Protecting shareholder and natural value: 2005 benchmark of biodiversity management practices in the extractive industry* (London, 2006).
Francioni F. and Lenzerini F. (Eds.), *The 1972 World Heritage Convention: A Commentary* (Oxford, 2008).
Fuchs C., 'Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – Conservation Efforts Undermine The Legality Principle' (2008) 9:11 *German Law Journal*.
Gaines W., Harrod R. and Lehmkuhl J., *Monitoring Biodiversity: Quantification and Interpretation* (United States Department for Agriculture, 1999).
Gardner R. and Connolly K., 'The Ramsar Convention on Wetlands: Assessment of International Designations Within the United States' (2007) 37:2 *Environmental Law Reporter* 10089.
Gardner R., Connolly K., & Bamba A., 'African Wetlands of International Importance: Assessment of Benefits Associated with Designations under the Ramsar Convention' (2009) XXI:2 *The Georgetown International Law Review* 256.
GEF, *Global Support for Biodiversity Conservation* (2006).
Gellis Communications, *Scoping study for an EU wide communications campaign on biodiversity and nature* (European Commission, 2009).
Gillespie A., *International Environmental Law, Policy and Ethics* (Oxford, 1997).
Glowka L., *A Guide to the Complementarities Between the Convention on Migratory Species and the Convention on Biological Diversity* (Biodiversity Strategies International, 2000).
Goldsmith J. and Posner E., *The limits of international law* (Oxford, 2005).
Goldstein W. and Hesselink F., *Developing capacity for communication – managing change for biodiversity results* (IUCN, Gland, 2003).
Goodwin E., 'Conservation of Coral Reefs Under the Ramsar Convention on Wetlands' (2006) 9:1 *Journal of International Wildlife Law & Policy* 1.
Goodwin E., 'The Consequences of Deleting World Heritage Sites' (2010) 21 *King's Law Journal* 283.
Gore A., *Earth in the Balance: Forging a new common purpose* (London, 1992).
Gore A., *Een Ongemakkelijke Waarheid: Het gevaar van het broeikaseffect en wat we eraan kunnen doen* (Amsterdam, 2006).
Gray Davidson M., 'Protecting Coral Reefs: The Principal National and International Legal Instruments' (2002) 26 *Harvard Environmental Law Review* 499.
Green J., 'Overview of the International Trade in Wild-Caught Reptiles' (2005) Animal Legal & Historical Center, Michigan State University College of Law.
Greenpeace, 'Who to Blame? The Role of the USA, Canada, and Australia Undermining the Rio Agreements' (2002) available on www.greenpeace.org/international.

Group on Earth Observations, *GEO-V* (2008).
Guruswamy L., 'The Convention on Biological Diversity: exposing the flawed foundations' (1999) 26:2 *Environmental Conservation* 79.
Haas P., *Science Policy For Multilateral Environmental Governance* (2002) Working Paper Project on International Governance Reform, United Nations University Institute of Advanced Studies.
Handl G., 'Environmental Security and Global Change: The Challenge to International Law' (1990) 1 *Yearbook of International Environmental Law* 3.
Heal G., *The Costs of Inaction with Respect to Biodiversity Loss* (WWF, IUCN, 2005).
Herkenrath P., 'The Implementation of the Convention on Biological Diversity - A Non-Government Perspective Ten Years On' (2002) 11:1 *RECIEL* 29.
Herkenrath P., 'Opinion – Birds and the Convention on Biological Diversity: can ornithologists and bird conservationists make a difference?' (2002) 12 *Bird Conservation International* 99.
Hesselbein I., Goldsmith M., Beckhard R. (Eds.), *The Organization of the Future* (San Francisco, 1997).
Hesselink F. et al., *Communication, Education and Public Awareness (CEPA): A Toolkit for National Focal Points and NBSAP Coordinators* (Montreal, 2007).
Hipwell W., 'Going Gentle: Making Optimists of Environmental Pessimists' (2005) 8:1 *Journal of International Wildlife Law & Policy* 91.
Hockings M., Stolton S. and Dudley N., *Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas* (IUCN, Gland, 2000).
Hodges T. and Daniel A., 'Promises and Pitfalls: First Steps on the Road to the International ABS Regime' (2005) 14:2 *RECIEL* 148.
Hoorick G. van, *Internationaal en Europees Natuurbehoudsrecht* (Antwerpen, 1997).
Hutton J. and Dickson B. (Eds.), *Endangered Species, Threatened Convention: The Past, Present and Future of CITES* (London, 2000).
ICCROM and World Heritage Centre, *Monitoring World Heritage* (2002).
Iles A., 'Rethinking Differential Obligations: Equity Under the Biodiversity Convention' (2003) 16 *Leiden Journal of International Law* 217.
International Bank for Reconstruction and Development/World Bank, *The World Bank and Biodiversity 1988-2005: Mountains to Coral Reefs* (Washington, 2008).
International Bank for Reconstruction and Development/World Bank, *Biodiversity, Climate Change, and Adaptation: Nature-Based Solutions from the World Bank* (Washington, 2008).
IUCN, *Trade Measures in Multilateral Environmental Agreements: The Effectiveness of Trade Measures Contained in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* (2000).
IUCN, *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance* (2003).
IUCN, *Achieving Environmental Objectives* (2004).
IUCN, *International Environmental Governance: An International Regime for Protected Areas* (2004).
IUCN, *The World Heritage List: Future priorities for a credible and complete list of natural and mixed sites* (2004).
IUCN, *Sustainable Financing of Protected Areas: A global review of challenges and options* (2006).

IUCN, *The World Heritage List: Guidance and future priorities for identifying natural heritage of potential outstanding universal value* (2006).
IUCN, *World Heritage and Protected Areas* (2008).
IUCN, 'World Heritage Biodiversity – Filling the Gaps' (2008) 49 *World Heritage* 56.
IUCN, *World Heritage in Danger* (2009).
Jack B., 'The European Community and Biodiversity Loss: Missing the Target?' (2006) 15:3 *RECIEL* 304.
Jans J., *European Environmental Law* (Groningen, 2000).
Jennings R., 'The Role of the International Court of Justice in the Development of International Environment Protection Law' (2000) 1:3 *RECIEL* 240.
Johnson S. & Vagg R., *Survival: Saving Endangered Migratory Species* (UNEP, CMS, London, 2010).
Jørgensen J. and Hønneland G., 'Implementing Global Nature Protection Agreements in Russia' (2006) 9:1 *Journal of International Wildlife Law & Policy* 33.
Kameri-Mbote P. and Cullet P., 'Biological Diversity Management in Africa: Legal and Policy Perspectives in the Run-up to WSSD' (2002) 11:1 *RECIEL* 38.
Kassas M., 'Biodiversity: gaps in knowledge' (2002) 22 *The Environmentalist* 43.
Kate K. ten, Laird S., 'Biodiversity and business: coming to terms with the 'grand bargain'' (2000) 76 *International Affairs* 241.
Kennedy M., Beynon N., Graham A. and Pittock J., 'Development and Implementation of Conservation Law in Australia' (2001) 10:3 *RECIEL* 296.
Khare A., Scherr S., Molnar A. and White A., 'Forest Finance, Development Cooperation and Future Options' (2005) 14:3 *RECIEL* 247.
Kim R., 'National Implementation of the Ramsar Convention and the Legal Protection of Coastal Wetlands in Korea' (2006) Unpublished Master's Thesis, University of Auckland.
Kirgis F., 'Reservations to Treaties and United States Practice' (2003) *The American Society of International Law,* article available on www.asil.org/insigh105.cfm.
Klemm C. de (in collaboration with Shine C.), *Biological Diversity Conservation and the Law: Legal Mechanisms for Conserving Species and Ecosystems* (IUCN, Gland, 1993).
Klemm C. de, 'The Problem of Migratory Species in International Law' (1994) *Green Globe Yearbook of International Co-operation on Environment and Development* 67.
Klemm C. de (in collaboration with Créteaux I.), *The Legal Development of the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (IUCN, Gland, 1995).
Klemm C. de, *Comparative Analysis of the Effectiveness of Legislation for the Protection of Wild Flora in Europe* (Strasbourg, 1997).
Koester V., 'The Five Global Biodiversity-Related Conventions: A Stocktaking' (2002) 11:1 *RECIEL* 96.
Koetz T., Bridgewater P., Hove S. van den, Siebenhüner B., 'The role of the Subsidiary Body on Scientific, Technical and Technological Advice to the Convention on Biological Diversity as science-policy interface' (2008) 11:6 *Environmental Science & Policy* 505.
Koskenniemi M., 'Peaceful Settlement of Environmental Disputes' (1991) 60 *Nordic Journal of International Law* 73.
Krämer L., *EC Environmental Law* (London, 2000).
Kutting G., 'Distinguishing Between Institutional and Environmental Effectiveness in International Environmental Agreements: The Case of the Mediterranean Action Plan' (2000) 5:1 *The International Journal of Peace Studies*.

Laikre L. et al., 'Wanted: Scientists in the CBD Process' (2008) 22:4 *Conservation Biology* 814.

Langley J., 'Overcoming the challenges of expanding and conserving marine World Heritage' 47 *World Heritage* 68.

Lasén Díaz C., 'Biodiversity for Sustainable Development: The CBD's Contribution to the MDGs' (2006) 15:1 *RECIEL* 30.

Latham J., Collen B., McRae L., Loh J., *The Living Planet Index for Migratory Species: an index of change in population abundance* (WWF, ZSL, 2008).

Leader-Williams N. et al., 'Trophy Hunting of Black Rhino *Diceros bicornis*: Proposals to Ensure Its Future Sustainability' (2005) 8:1 *Journal of International Wildlife Law & Policy* 1.

Lee S., Hoover C., Gaski A. and Mills J., *A World Apart: Attitudes toward traditional Chinese medicine and endangered species in Hong Kong and the United States* (TRAFFIC, WWF, 1998).

Le Prestre P. (Ed.), *Governing Global Biodiversity: The evolution and implementation of the Convention on Biological Diversity* (Aldershot, 2002).

Lichtenstein G., 'Vicuña conservation and poverty alleviation? Andean communities and international fibre markets' (2010) 4:1 *International Journal of the Commons* 100.

Little L. and Orellana M., 'Can CITES Play a Role in Solving the Problem of IUU Fishing?: The Trouble with Patagonian Toothfish' (2005) 16 *Colorado Journal of International Environmental Law & Policy* 21.

Loh J. (Ed.), *2010 and Beyond: Rising to the biodiversity challenge* (WWF, ZSL, Global Footprint Network, 2008).

Lomborg B., *The Skeptical Environmentalist* (Cambridge, 2001).

Lugo E., 'Ecosystem Services, the Millennium Ecosystem Assessment, and the Conceptual Difference between Benefits Provided by Ecosystems and Benefits Provided by People' (2008) 23:2 *Journal of Land Use and Environmental Law* 243.

Lynch-Stewart P., *Wetlands of International Importance (Ramsar Sites) in Canada: Survey of Ramsar Site Managers 2007* (2008).

Macleod I., Hendry I., and Hyett S., *The External Relations of the European Communities* (Oxford, 1996).

Magin C. and Chape S., *The Review of the World Heritage Network: Biogeography, Habitats and Biodiversity* (2004).

Martin-Mehers G., Goldsmith M., Beckhard R. (Eds.), *Achieving Environmental Objectives: The role and value of Communication, Education, Participation and Awareness (CEPA) in Conventions and Agreements in Europe* (IUCN CEC, Gland, 2004).

Maté J., 'Making a Difference: A Case Study of the Greenpeace Ozone Campaign' (2001) 10:2 *RECIEL* 190.

Matthews G., *The Ramsar Convention on Wetlands: Its History and Development* (1993).

Mayr J., 'Towards a Holistic Vision of World Heritage' (2008) 49 *World Heritage* 32.

McBeath J. and McBeath J., 'Biodiversity Conservation in China: Policies and Practice' 9:4 *Journal of International Wildlife Law & Policy* 293.

McConnell F., *The Biodiversity Convention: A Negotiating History* (London, 1996).

McDorman T., 'Whales, the U.S. Pelly Amendment and international trade law' (1997) Proceedings of a conference held in Reykjavik on March 1, 1997, organised by the Fisheries Research Institute and the High North Alliance.

McGeoch M. et al., 'Global indicators of biological invasion: species numbers, biodiversity impact and policy responses' (2010) 16 *Diversity and Distribution* 95.
McGrath C., 'The Flying Fox Case' (2001) 18:6 *Environmental and Planning Law Journal* 540.
McGraw D., 'The CBD – Key Characteristics and Implications for Implementation' (2002) 11:1 *RECIEL* 17.
McNeely J., 'Review – Using economic instruments to overcome obstacles to *in situ* conservation of biodiversity' (2006) 1 *Integrative Zoology* 25.
McOmber E., 'Problems in Enforcement of the Convention on International Trade in Endangered Species' XXVII:2 *Brooklyn Journal of International Law* 673.
Medaglia J., 'Biodiversity for (Bio)Technology under the Convention on Biological Diversity: Bioprospecting partnership in practice' (2004) *IP Strategy Today No.11, Biodevelopments, New York*.
Meere F. et al., *CITES "Introduction From The Sea" A Practical Way Forward: Proceedings of a Joint TRAFFIC/ANCORS Workshop* (TRAFFIC, 2008)
Mehling M., 'Betwixt Scylla and Charybdis: The Concept of Effectiveness in International Environmental Law' (2002) Vol. XIII *Finnish Yearbook of International Law* 129.
Meyer S., 'End of the Wild: The extinction crisis is over. We lost.' (2004) 29:2 *Boston Review*.
Meyer-Ohlendorf N., 'Would a United Nations Environment Organization Help to Achieve the Millennium Development Goals?' (2006) 15:1 *RECIEL* 23.
Miles E. et al., *Environmental Regimes Effectiveness: Confronting Theory with Evidence* (Cambridge, 2002).
Miles K., 'Innovative Financing: Filling in the Gaps on the Road to Sustainable Environmental Funding' (2005) 14:3 *RECIEL* 202.
Milieu Consortium (Milieu Ltd., DDH Consulting, ViSKon), *Study on the Enforcement of the EU Wildlife Trade Regulations in the EU-25* (2006).
Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, 2005).
Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Wetlands and Water Synthesis* (Washington, 2005).
Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Biodiversity Synthesis* (Washington, 2005).
Ministerie van LNV, *Programmatisch Handhaven van Natuurwetgeving* (2007).
Mitchell R., 'Part Two: The Effectiveness of International Environmental Regimes: Problem Structure, Institutional Design, and the Relative Effectiveness of International Environmental Agreements' (2006) 6:3 *Global Environmental Politics* 72.
Mittermeier R. et al., 'Wilderness and biodiversity conservation' (2003) 100:18 *PNAS* 10309.
Mittermeier R. et al., *Hotspots Revisited: Earth's Biologically Richest and Most Threatened Terrestrial Ecoregions* (2004).
Molenaar E. & Oude Elferink A., 'Marine protected areas in areas beyond national jurisdiction: The pioneering efforts under the OSPAR Convention' (2009) 5:1 *Utrecht Law Review* 5.
Moltke K. von, 'The Organization of the Impossible' (2001) 1:1 *Global Environmental Politics* 23.
Moltke K. von, 'On Clustering International Environmental Agreements' (2001) available on http://iisd.org/pdf/trade_clustering_meas.pdf.
Mooney H. and Mace G., 'Editorial – Biodiversity Policy Challenges' (2009) 325 *SCIENCE* 1474.

Morgera E., 'An Update on the Aarhus Convention and its Continued Global Relevance' (2005) 14:2 *RECIEL* 138.
Morgera E., 'The UN and Corporate Environmental Responsibility: Between International Regulation and Partnerships' (2006) 15:1 *RECIEL* 93.
Morgera E. and Marín Durán G., 'The 2005 UN World Summit, the Environment and the Role of the EU: Priorities, Promises and Prospects' (2006) 15:1 *RECIEL* 11.
Mulder I., Dellink R. en Ierland E. van, 'Het biorechtenconcept als strategie tegen natuurdegradatie en armoede (verkorte versie)' (2005) 69 *Ecologie & Ontwikkeling* 11.
Mulongoy K. and Chape S. *Protected Areas and Biodiversity: An overview of key issues* (CBD Secretariat and UNEP-WCMC, 2004).
Murphy J., 'Alternative approaches to the CITES "non-detriment" finding for Appendix II species' (2006) 36:2 *Lewis & Clark Law School Environmental Law* 531.
Myers N. and Knoll A., 'The biotic crisis and the future of evolution' (2001) 98:10 *PNAS* 5389.
Naidoo R. et al., 'Global mapping of ecosystem services and conservation priorities' (2008) 105:28 *PNAS* 9495.
Najam A., 'The Case Against a New International Environmental Organization' (2003) 9 *Global Governance* 367.
Netherlands Environmental Assessment Agency, *Growing within Limits: A Report to the Global Assembly 2009 of the Club of Rome* (Bilthoven, 2009).
Newson S. et al., 'Indicators of the impact of climate change on migratory species' (2008) 7:2 *Endangered Species Research* 1.
Nijkamp H. & Nollkaemper A., 'The Protection of Small Cetaceans in the Face of Uncertainty: An Analysis of the ASCOBANS Agreement' (1997) 9 *The Georgetown International Environmental Law Review* 281.
Nijman V., 'An overview of international wildlife trade from Southeast Asia' (2010) 19:4 *Biodiversity and Conservation* 1101.
Nollkaemper A., 'Habitat Protection in European Community Law: Evolving Conceptions of a Balance of Interests' (1997) 9:2 *Journal of Environmental Law* 271.
Nollkaemper A., 'Toepassing van internationaal milieurecht door Nederlandse rechters' (1998) 73 *Nederlands Juristenblad* 249.
Nollkaemper A., *Kern van het internationaal publiekrecht* (Den Haag, 2004).
Noortmann J., *Internationaal Recht* (Den Haag, 2004).
Note: 'The CITES Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking' 114 *Harvard Law Review* 1769.
OECD, *Green at Fifteen? How 15-year-olds perform in Environmental Science and Geoscience in PISA 2006* (2009).
Oldfield S. (Ed.), *The Trade in Wildlife* (London, 2003).
Ong D., 'The Convention on International Trade in Endangered Species (CITES, 1973): Implications of Recent Developments in International and EC Environmental Law' (1998) 10:2 *Journal of Environmental Law* 291.
Oudenaarden T., *Eenheid in verscheidenheid? De juridische betekenis van de doelstelling van behoud van biologische diversiteit in het Biodiversiteitsverdrag* (Nijmegen, 2008).
Owen D., 'The Application of the Wild Birds Directive Beyond the Territorial Sea of European Community Member States' (2001) 13:1 *Journal of Environmental Law* 39.
Pallemaerts M., 'International Law and Sustainable Development: Any Progress in Johannesburg?' (2003) 12:1 *RECIEL* 1.
Park C., *The Environment: Principles and Application* (London, 1997).

Patry M., 'World Heritage Forests – losing connectivity, losing integrity?' (2008) 49 *World Heritage* 43.
Perrez F., 'The World Summit on Sustainable Development: Environment, Precaution and Trade - A Potential for Success and/or Failure' (2003) 12:1 *RECIEL* 12.
Persic A., 'World Heritage Sites and Biosphere Reserves – Responding to common challenges' (2008) 49 *World Heritage* 63.
Pimentel D. et al., 'Economic and environmental threats of alien plant, animal, and microbe invasions' (2001) 84 *Agriculture Ecosystems and Environment* 1.
Pisupati B., 'The Role of Biodiplomacy in Implementing MEAs' (2007) MEA Bulletin: Guest Article available on www.iisd.ca/mea-l/guestarticle28.htm.
Potter J., 'Editorial: World Heritage Sites – What are They?' (2003) 23 *The Environmentalist* 7.
Potzold C., *Multilateral Environmental Agreements: Innovative International Compliance Procedures* (Society for Environmental Law and Economics, 2009).
Pouliot V., '*Forum prorogatum* before the International Court of Justice: The *Djibouti v. France* case' (2008) 3:3 *Hague Justice Journal*.
Rajamani L., 'From Stockholm to Johannesburg: The Anatomy of Dissonance in the International Environmental Dialogue' (2003) 12:1 *RECIEL* 23.
Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands (Ramsar, Iran, 1971)* (Gland, 2006).
Ramsar Culture Working Group, *World Heritage Convention: Challenges and perspectives* (2009).
Raustiala K., *Reporting and Review Institutions in 10 Multilateral Environmental Agreements* (UNEP, 2001).
Razzaque J., 'Access to Justice in Environmental Matters at EU Member State Level – An Update on the UK' (2005) 5 *Yearbook of European Environmental Law* 67.
Rees P., 'The EC Zoos Directive: A Lost Opportunity to Implement the Convention on Biological Diversity' (2005) 8:1 *Journal of International Wildlife Law & Policy* 51.
Reeve R., *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London, 2002).
Reeve R., 'Wildlife trade, sanctions and compliance: lessons from the CITES regime' (2006) 82:5 *International Affairs* 881.
Richardson B., Le Bouthillier Y., McLeod-Kilmurray H., Wood S. (Eds.), *Climate Law and Developing Countries* (Cheltenham, 2009).
Ringquist E. and Kostadinova T., 'Assessing the Effectiveness of International Environmental Agreements: The Case of the 1985 Helsinki Protocol' (2005) 49:1 *American Journal of Political Science* 86.
Rivera M. and Llorens M., *Wetlands for the Future Fund: Benefiting Wetland Management and Conservation in Latin America and the Caribbean* (Ramsar Convention Secretariat, 2010).
Roberts P., 'International Funding for the Conservation of Biological Diversity: Convention on Biological Diversity' (1992) 10:2 *Boston University International Law Journal* 303 (reproduced by CIESIN).
Rockström J. et al., 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity' (2009) 14:2 *Ecology and Society* 32.
Roggeri H., 'CoP9 van de Ramsarconventie doet Afrika aan' (2006) 14:70 *Ecologie & Ontwikkeling* 65.

Rubino M., 'Biodiversity Finance' (2000) 76:2 *International Affairs* 223.
Rutherford L., 'Protecting World Heritage Sites: *Coal Contractors Limited v Secretary of State for the Environment and Northumberland County Council*' (1994) 6:2 *Journal of Environmental Law* 369.
Ryall A., 'Strengthening Rights of Participation in Environmental Decision-Making' (2001) 8:3 *Irish Planning and Environmental Law Journal* 103.
Saarenmaa H., *The Global Biodiversity Information Facility: Architectural and implementation issues* (EEA, Copenhagen, 1999).
Sachs J. et al., 'Biodiversity Conservation and the Millennium Development Goals' (2009) 325 *SCIENCE* 1502.
Sadeleer N. de, Roller G. & Dross M., *Access to Justice in Environmental Matters and the Role of NGO's: Empirical Findings and Legal Appraisal* (Groningen, 2005).
Sand P. (Ed.), *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments* (Cambridge, 1992).
Sand P., 'Commodity or Taboo? International Regulation of Trade in Endangered Species' (1997) *Green Globe Yearbook 1997* 19.
Sand P., 'Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment' (1997) 8:1 *European Journal of International Law* 29.
Sand P., 'Carrots without Sticks? New Financial Mechanisms for Global Environmental Agreements' (1999) *Max Planck Yearbook of United Nations Law 3* 363.
Sand P., 'Environmental Summitry and International Law' (2002) 13 *Yearbook of International Environmental Law* 21.
Sand P., 'Sovereignty Bounded: Public Trusteeship for Common Pool Resources?' (2004) 4:1 *Global Environmental Politics* 47.
Sand P., 'Japan's Research Whaling in the Antarctic Southern Ocean and the North Pacific Ocean in the Face of the Endangered Species Convention (CITES)' (2008) 17:1 *RECIEL* 56.
Sands P., 'Enforcing Environmental Security: The Challenges of Compliance with International Obligations' (1993) 46:2 *Journal of International Affairs* 367.
Sands P., *Principles of International Environmental Law* (Cambridge, 2003).
Sarma M., *Compliance with the Montreal Protocol* (INECE, 2005).
Scanlon J. and Burhenne-Guilmin F. (Eds.), *International Environmental Governance: An International Regime for Protected Areas* (IUCN Environmental Law Programme, Gland, 2004).
Scholes R. et al., 'Toward a Global Biodiversity Observing System' (2008) 321 *SCIENCE* 1044.
Segger M., Khalfan A., Gehring M. and Toering M., 'Prospects for Principles of International Sustainable Development Law after the WSSD: Common but Differentiated Responsibilities, Precaution and Participation' (2003) 12:1 *RECIEL* 54.
Shaw M., *International Law* (Cambridge, 2003).
Shelton D. (Ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (Oxford, 2000).
Siebenhüner B., 'Administrator of global biodiversity: The secretariat of the convention on biological diversity' (2007) 16:1 *Biodiversity and Conservation* 259.
Siebenhüner B., Dedeurwaerdere T., Brousseau E., 'Introduction and overview to the special issue on biodiversity conservation, access and benefit-sharing and traditional knowledge' (2005) 53:4 *Ecological Economics* 439.

Simons H., 'Biodiversiteitsverdrag CBD: COP in het zand?' (2008) 16:76 *Ecologie & Ontwikkeling* 2.
Simpson R., 'Conserving Biodiversity through Markets: A Better Approach' (2004) PS-32 *Property & Environment Research Center Policy Series* 1.
Somsen H. (Ed.), *Protecting the European Environment: Enforcing EC Environmental Law* (London, 1996).
Speth J., *Red Sky at Morning: America and the Crisis of the Global Environment* (New Haven, 2004).
Sprinz D., 'Research on the Effectiveness of International Environmental Regimes: A Review of the State of the Art' (1999) 40th Annual Convention of the International Studies Association, Washington D.C.
Stanley-Price N., *Monitoring World Heritage* (ICCROM and World Heritage Centre, 2002).
Steinberg P., 'From Public Concern to Policy Effectiveness: Civic Conservation in Developing Countries' (2005) 8:4 *Journal of International Wildlife Law & Policy* 341.
Steiner A., '25th Anniversary of the Convention on Migratory Species: A long and productive partnership' (2004) *World Conservation (Special Feature)*.
Steiner M., 'NGO Reflections on the World Summit: Rio + 10 or Rio - 10?' (2003) 12:1 *RECIEL* 33.
Stokke O., 'Determining the Effectiveness of International Regimes' (2007) Conference Paper.
Stone C., *Should TREES Have Standing? And other essays on law, morals and the environment* (New York, 1996).
Strahm W., 'World Heritage and the IUCN Red List' (2008) 49 *World Heritage* 18.
Stratos, *Management Review of the Secretariat to the CBD: Implementation Support to the Parties for Enhanced Implementation of the Convention* (2007).
Stratos, *Third Review of the Effectiveness of the Financial Mechanism of the Convention on Biological Diversity* (2008).
Stuart S. et al., 'The Barometer of Life' (2010) 328 *SCIENCE* 177.
Sukhdev P. (Ed.), *The Economics of Ecosystems & Biodiversity (TEEB)* (Interim Report, 2008).
Sutherland W. et al., 'One Hundred Questions of Importance to the Conservation of Global Biological Diversity' (2009) 23:3 *Conservation Biology* 557.
Tarasofsky R. & Hoare A., *Implications of a UNEO for the global architecture of the international environmental governance system* (IDDRI, 2004).
TEEB, *Interim Report* (2008).
The Gallup Organisation, *Flash Eurobarometer 219: Attitudes of Europeans towards the issue of biodiversity* (European Commission, 2007).
The Gallup Organisation, *Flash Eurobarometer 290: Attitudes of Europeans towards the issue of biodiversity: Draft analytical report Wave 2* (European Commission, 2010).
Thomas B., 'Slippers, Thieves and Smugglers – Dealing with the Illegal International Trade in Orchids' (2006) 8 *Environmental Law Review* 85.
Thomas W., 'Whither from Here? American Enterprise and the Journey Towards Environmentally Sustainable Globalization following the WSSD' (2003) 12:1 *RECIEL* 39.
Thorpe J., '"They said you'd never make it." Hinchinbrook: A case study of development and environmental protection in Australia' (1999) August Issue *Tertangala Green Book* 12.
Tiega A., 'Partnership between the World Heritage Convention and the Ramsar Convention on Wetlands' (2008) 49 *World Heritage* 74.
T.M.C. Asser Instituut, *International Environmental Law: Documents* (The Hague, 1997).

Toulmin C. & Bigg T., *Financing for environment and development* (IDDRI, 2004).
Tourtellot J., 'World Heritage's biggest threat and benefactor: tourism' (2007) 47 *World Heritage* 54.
Trouwborst A., 'International Nature Conservation Law and the Adaptation of Biodiversity to Climate Change: a Mismatch?' (2009) 21:3 *Journal of Environmental Law* 419.
Tully S., 'The Bonn Guidelines on Access to Genetic Resources and Benefit Sharing' (2003) 12:1 *RECIEL* 84.
Tvedt M. and Young T., *Beyond Access: Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD* (IUCN, Gland, 2007).
UNEP, *Envisioning the Next Steps for MEA Compliance and Enforcement* (2006).
UNEP, *Envisioning the Next Steps for MEA Compliance and Enforcement: Issue Paper for Participants' Consideration* (2006).
UNEP, *High-Level Meeting on Envisioning the Next Steps for MEA Compliance and Enforcement: Agreed Chairman's Summary* (2006).
UNEP, *Developing Responses to Factors Inhibiting Implementation and Enforcement of Multilateral Environmental Agreements: Background Paper* (2006).
UNEP, *Compliance Mechanisms under Selected Multilateral Environmental Agreements* (2006).
UNEP, *Challenges to International Waters; Regional Assessments in a Global Perspective* (2006).
UNEP/CMS, *Review of Small Cetaceans: Distribution, Behaviour, Migration and Threats* (2004).
UNEP/CMS, *Migratory Species: Working Together towards a Vision for 2020, Opportunities and Challenges for Migratory Wildlife from the North American Perspective* (2007).
UNEP/CMS, *Convention on Migratory Species* (2008).
UNEP/CMS, *CMS Family Guide* (2008).
UNEP-WCMC, *Synergies and Cooperation: A status report on activities promoting synergies and cooperation between Multilateral Environmental Agreements, in particular biodiversity-related conventions, and related mechanisms* (Cambridge, 2004).
UNEP-WCMC, *The 2010 Biodiversity Indicators and the post-2010 indicators framework* (Reading, 2009).
UNEP-WCMC, *The Ramsar Convention on Wetlands and its indicators of effectiveness* (Reading, 2009).
UNESCO, *Report of the World Heritage Global Strategy Natural and Cultural Heritage Expert Meeting* (1998).
United States General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (1999)
United States Government Accountability Office (GAO), *Protected Species: International Convention and U.S. Laws Protect Wildlife Differently* (2004).
Verschuuren J., *De laatste wilde hamster in Nederland en de grondslagen van het Europees en international milieurecht* (Deventer, 2000).
Verschuuren J., 'Implementation of the Convention on Biodiversity in Europe: 10 years of Experience with the Habitats Directive' (2002) 5:3 *Journal of International Wildlife Law and Policy* 251.
Verschuuren J., *Principles of Environmental Law: The Ideal of Sustainable Development and the Role of Principles of International, European, and National Environmental Law* (Baden-Baden, 2003).

Verschuuren J., 'Effectiveness of Nature Protection Legislation in the EU and the US: The Birds and Habitats Directives and the Endangered Species Act' (2003) 3 *Yearbook of European Environmental Law* 305.
Verschuuren J., 'Public Participation regarding the Elaboration and Approval of Projects in the EU after the Aarhus Convention' (2005) 4 *Yearbook of European Environmental Law* 29.
Verschuuren J., 'The Right to Water as a Human Right or a Bird's Right? Does Co-operative Governance Offer a Way Out of a Conflict of Interests and Legal Complexity' (2007) Paper presented at the workshop 'Legal Aspects of Water Sector Reforms' organised by the International Environmental Law Research Centre, 20-21 April 2007.
Verschuuren J., 'The Case of Transboundary Wetlands Under the Ramsar Convention: Keep the Lawyers Out!' (2008) 19:1 *Colorado Journal of International Environmental Law & Policy* 49.
Verschuuren J., 'Ramsar Soft Law is Not Soft at All. Discussion of the 2007 Decision by the Netherlands Crown on the Lac Ramsar Site on the Island of Bonaire' (2008) This paper is a translation of a case law annotation published in the Dutch environmental law review (2008) 35:1 '*Milieu en Recht*' (Environment and Law) 28.
Verschuuren J. (Ed.), *The Impact of Legislation: A Critical Analysis of Ex Ante Evaluation* (Leiden, 2009).
Victor D., 'Implementation and Effectiveness of International Environmental Commitments' (1993) A project conducted by the International Institute for Applied Systems Analysis (IIASA) and reproduced with permission by CIESIN.
Victor D., House J., Joy S., 'A Madisonian Approach to Climate Policy' (2005) 309 *SCIENCE* 1820.
Victor D., Raustiala K., Skolnikoff E. (Eds.), *The Implementation and Effectiveness of International Environmental Commitments* (Cambridge, 1998).
Vié J.-C., Hilton-Taylor C. and Stuart S. (Eds.), *Wildlife in a changing world: An analysis of the 2008 IUCN Red List of Threatened Species* (IUCN, Gland, 2009).
Vos J. en Oosterhuis F., 'Economische instrumenten in het milieubeleid' (2007) 34:4 *Milieu & Recht* 206.
Wagner M. and Brinkmann C., *Global Environmental Governance: A European Perspective* (2005) The Federal Trust for Education & Research, European Essay No.36.
Walpole M. et al., 'Tracking Progress Toward the 2010 Biodiversity Target and Beyond' (2009) 325 *SCIENCE* 1503.
Ward V., 'Book Review Essays: International Environmental Regimes: Where Are We Now?' (2002) 12 *Global Environmental Politics* 116.
Warkentin I. et al., 'Eating Frogs to Extinction' (2009) 23:4 *Conservation Biology* 1056.
Warleigh A., *The Committee of the Regions: Institutionalising Multi-level Governance?* (London, 1999).
Watson R., 'Turning science into policy: challenges and experiences from the science-policy interface' (2005) 360 *Philosophical Transactions of The Royal Society B* 471.
Weatherill S. & Beaumont P., *EU Law: The Essential Guide to the Legal Workings of the European Union* (London, 1999).

Werksman J., *Five MEAs, Five Years Since Rio: Recent Lessons on the Effectiveness of Multilateral Environmental Agreements* (1997) Rio+5 Special Focus Report, Foundation for International Environmental Law & Development (FIELD).
Wettestad J., *Designing Effective Environmental Regimes: The Key Conditions* (Cheltenham, 1999).
Wiffen G., *World Heritage Sites and Buffer Zones: an Australian perspective* (ICOMOS Australia, 2006).
Wijnstekers W., *Evolution of CITES* (EBook, 8th edition, 2005).
Wilcove D., *No Way Home: The Decline of the World's Great Animal Migrations* (Washington D.C., 2008).
Wilcove D., 'Animal Migration An Endangered Phenomenon?' (2008) 24:3 *Issues in Science and Technology*.
Wilcove D., Wikelski M., 'Going, Going, Gone: Is Animal Migration Disappearing?' (2008) 6:7 *PLoS Biology* 1361.
Wilson E., *The Diversity of Life* (London, 1992).
Wilson E., *The Future of Life* (London, 2002).
World Commission on Environment and Development (WCED), *Our Common Future* (Oxford, 1987).
World Heritage Centre, *The UNESCO World Heritage Centre's Natural Heritage Strategy* (Paris, 2006).
World Heritage Centre, *World Heritage: Challenges for the Millennium* (Paris, 2007).
World Heritage Centre, *Operational Guidelines for the Implementation of the World Heritage Convention* (Paris, 2008).
World Heritage Centre, *World Heritage Information Kit* (Paris, 2008).
World Resources Institute, *World Resources 1992-1993* (New York, 1992) (reproduced by CIESIN).
World Water Assessment Programme, *Water, a shared responsibility* (UN, 2006).
World Water Assessment Programme, *Water in a Changing World* (UN, 2009).
WWF, *Living Planet Report 2004* (Gland, 2004).
WWF, *Living Planet Report 2008* (Gland, 2008).
WWF/IUCN, *The status of natural resources on the high-seas: Legal and political considerations* (Gland, 2001).
Xiang Y. and Meehan S., 'Financial Cooperation, Rio Conventions and Common Concerns' (2005) 14:3 *RECIEL* 212.
Yale Center for Environmental Law and Policy, *Improving Enforcement and Compliance on International Trade in Endangered Species* (2002).
Yamin F., 'NGOs and International Environmental Law: A Critical Evaluation of their Roles and Responsibilities' (2001) 10:2 *RECIEL* 149.
Yeater M. and Vasquez J., 'Demystifying the Relationship Between CITES and the WTO' (2001) 10:3 *RECIEL* 271.
Young O., *International Governance* (New York, 1994).
Young O. (Ed.), *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms* (Cambridge, 1999).
Young O., 'Evaluating the success of international environmental regimes: where are we now?' (2002) 12 *Global Environmental Change* 73.
Young O., 'Determining Regime Effectiveness: A Commentary on the Oslo-Potsdam Solution' (2003) 3:3 *Global Environmental Politics* 97.

Young S., 'Contemporary Issues of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Debate Over Sustainable Use' (2003) 14:1 *Colorado Journal of International Environmental Law & Policy* 167.
Young T., 'Declining Rural Populations and the Future of Biodiversity: Missing the Forest for the Trees?' (2006) 9:4 *Journal of International Wildlife Law & Policy* 319.
Zeidler J. and Mulongoy K., 'The Dry and Sub-Humid Lands Programme of Work of the Convention on Biological Diversity: Connecting the CBD and the UN Convention to Combat Desertification' (2003) 12:2 *RECIEL* 164.
Ziemele I. (Ed.), *Reservations to Human Rights Treaties and the Vienna Convention Regime* (Leiden, 2004).

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